

LINN • BENTON COMMUNITY COLLEGE



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40

BUILDING
COMMUNITIES

LINN-BENTON COMMUNITY COLLEGE

1993-94 ACADEMIC CALENDAR

	Summer 1993	Fall 1993	Winter 1994	Spring 1994	Summer 1994
Registration Begins	See Quarterly Schedule of Classes				
Classes Begin	June 21	Sept. 27	Jan. 3	March 28	June 20
Last Day to Drop without "W"	July 1	Oct. 8	Jan. 14	April 8	June 30
Last Day to Withdraw and Qualify for a Refund (Full-term classes)	July 1	Oct. 8	Jan. 14	April 8	June 30
Last Day to Request P/NP (Full-term classes)	August 5	Nov. 12	Feb. 18	May 13	August 4
Last Day to Officially Withdraw (Full-term classes)	August 5	Nov. 12	Feb. 18	May 13	August 4
Final Exams	August 23-26	Dec. 13-15	March 14-16	June 6-8	August 22-25
Graduation				June 9	
Last Day of Term	August 26	Dec. 17	March 18	June 10	August 25
Holidays/In-Service: No Classes Held	See Quarterly Schedule of Classes				

Interior Photos by:

John Curry, John Mix, Bob Ross and Joan White.

LINN-BENTON COMMUNITY COLLEGE

General Catalog

1993-94

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THE COLLEGE

LBCC Overview

Linn-Benton Community College is a two-year public college serving the educational needs of residents in its two-county district. The college is supported by tuition, local property taxes and state revenue and is directed by an elected, seven-member board of education. Admission to LBCC is open to any district resident beyond high school age.

Recognizing the diverse needs of its students, the college offers general education courses, occupational and technical preparatory training, lower division college transfer courses and skills upgrading for those already employed.

The Cooperative Work Experience program provides students with practical experience in jobs related to their fields of study.

Special programs are offered in adult basic education for the vocationally disadvantaged and the handicapped.

The college's Extended Learning centers offer a wide variety of credit and non-credit classes on the Albany campus, in the Corvallis, Lebanon and Sweet Home Centers and at other locations throughout the district. Non-credit classes that do not qualify for reimbursement from the state are required by the college to be self-supporting. Tuition rates for these classes are higher to cover all instructor and facility costs.

In addition to the Extended Learning classes, the Training and Business Development Center serves the needs of the district's business and industrial community. The Department of Family Resources provides special services, including classes, workshops and consultations, to help strengthen families.

A full range of student services, including career counseling, academic and personal guidance, financial aid and job placement, are provided in addition to supportive learning services.

Philosophy

Linn-Benton is a two-year community college, publicly funded and locally governed. It was established to provide fully accessible educational opportunities to members of the community based on the following beliefs:

1. Individuals have different potentials for growth and self-fulfillment.
2. Learning provides the means for men and women to develop their abilities, to expand their knowledge and skills, and to approach their potential as contributing members of a free society.
3. Learning opportunities should be available to the greatest number of people with minimum restrictions, based on individual and community needs.

4. Enrollment should be based on an open door policy, so as to accommodate high school graduates and other adults who are capable of profiting from the instruction offered. Through proper assessment and advising, students will be able to select appropriate courses of study.
5. Appropriate high standards of performance should be maintained within each course of study.
6. The educational scope of college programs should be as broad and flexible as possible, with priorities established on the basis of available resources. Within these limits, the programs should be responsive to local, state, national and global needs, as well as reflect sound educational standards.
7. Tuition and fees should be maintained at a reasonable level.
8. Local direction and control of the college should be maintained through the elected board of education, consistent with local, state and federal laws and policies.

Mission

The mission of Linn-Benton Community College is to provide accessible, quality, life-long learning opportunities to serve the present and future needs of the community. The college works in cooperation with public school systems and other institutions of higher education. The college is community based and is committed to student success through responsive and flexible educational programs designed to meet individual student needs.

The mission will be accomplished by developing, implementing and updating the following comprehensive education programs and services.

1. The college shall emphasize its commitment to a high-quality teaching and learning environment which fosters creativity, critical thinking skills, leadership skills and student success.
2. The college shall provide students with the opportunity to develop competencies to function as life-long learners given the challenge of a changing world society.
3. The college shall respond to the needs of business and industry by providing occupational programs for training, retraining and upgrading the skills of those seeking entry-level employment or career advancement.
4. The college shall provide lower-division transfer courses for students transferring to four-year colleges and universities, completing associate degree requirements or for broadening their educational base.
5. The college shall offer developmental and remedial programs to prepare students to enter occupational or transfer programs of their choice.

6. The college shall provide the planning, services and facilities needed to provide a positive learning environment and to enhance student life.
7. The college shall provide opportunities for residents of the district to appreciate and participate in cultural, recreational, civic and international activities which enhance the quality of life.
8. The college and its staff shall support and participate in community service activities.

History

The endeavor to establish Linn-Benton Community College began in 1963 through the cooperative efforts of the Linn County Chamber of Commerce and community leaders in Benton County. In 1964, a study prepared by the University of Oregon's Bureau of Educational Research documented the need for a community college in the two-county area.

In 1966, through a local election, the Linn-Benton Community College District was formed. In the fall of 1967, 2,800 students enrolled in the college's first classes, held in rented facilities throughout the district.

Following voter approval of a \$6.1 million bond issue in 1970, the college moved from its headquarters at 203 W. First Avenue in Albany to the present college site. Classes were held in trailers and modular buildings during construction of permanent facilities.

As the campus has grown, so has the student body. Currently, nearly 26,000 people take one or more classes through LBCC each year, or a full-time equivalent of nearly 5,100 full-time students, making LBCC the fifth largest of Oregon's 16 community colleges.



The Campus

The 104-acre campus is centrally located in the mid-Willamette Valley, two miles south of Albany and 11 miles east of Corvallis. The main campus complex is formed by 13 contemporary brick buildings, connected by covered walkways and encircling a landscaped open courtyard. These buildings have been constructed gradually since 1970, in accordance with a master building plan that was completed with the opening of Takena Hall in 1979. Takena Hall is the "front door" to LBCC and centralizes most student services.

No new buildings were added at the college until the 1987 Legislature approved \$8.5 million in construction funds for Oregon community colleges. Among the projects approved was a new center for LBCC's Family Resources program. The new building opened the fall of 1988 and was formally dedicated in February 1989.

The Workforce Education Building opened in 1992 and is the site for three training and workforce programs, which are operated through collaborative efforts of the college and local and state agencies.

Many of the college's more than 120 classrooms, shops and instructional laboratories are geared to individualized learning. Shop and laboratory equipment is designed to train students for employment in today's businesses and industries.

On-campus dining facilities include a cafeteria and the Santiam Room, a student-operated restaurant, in the College Center and the Camas Room in Takena Hall.

A small greenhouse, arboretum site, learning resource center, bookstore, 500-seat theatre and physical education and sports facilities are included in the campus complex.

All main campus facilities are designed with the needs of people with disabilities in mind, including special parking areas and access to buildings and classrooms.

The Extended Learning centers, along with other facilities throughout the district, are used to make educational opportunities easily accessible to all men and women in the area.

Accreditation

Linn-Benton Community College has been accredited by the Accrediting Commission of the Northwest Association of Schools and Colleges. Courses are approved by the Oregon State Board of Education and lower division courses have been approved for transfer to Oregon State System of Higher Education colleges and universities. A variety of Linn-Benton programs qualify for veterans benefits with approval of the Veterans' Administration.

Students who want to review information about LBCC's accreditation status may contact the President's office, CC-101, 967-6100. Students also may write the Northwest Association of Schools and Colleges, 3700-B University Way NE, Seattle, WA 98105, for information about the college's accreditation status.

Non-Discrimination Policy

Linn-Benton Community College maintains a policy of non-discrimination and equal opportunity in employment and admissions, without regard to sex, race, color, creed, national antecedents, handicap, economic need or age. Questions or concerns related to affirmative action, non-discrimination or equal opportunity should be directed to the Human Resources Office; Linn-Benton Community College; 6500 SW Pacific Blvd.; Albany, OR 97321-3779. Telephone: 967-6502.

Pledge to Quality Education

LBCC will refund the tuition of any LBCC graduate for any transfer course passed at LBCC with a grade of "C" or better if the earned credit does not transfer to an Oregon State System of Higher Education college or university. This guarantee is good within two years of graduation from LBCC, subject to the maximum credit hour limitation of the receiving institution. Transfer courses are those courses in the Linn-Benton Community College catalog that are identified and approved as transfer courses by the Office of Instruction at LBCC.

Any graduate of an Associate of Applied Science* degree program who is judged by his or her employer to lack communication, computation, interpersonal or technical skills normally expected of a job-entry employee will be provided further skill training up to 15 quarter credit hours by LBCC without charged.

*Special Conditions do apply. See LBCC's Graduate Guarantee for details or contact the Assistant to the President for Academic Affairs, Linn-Benton Community College, 6500 SW Pacific Blvd., Albany, OR 97321-3779. (503) 967-6100.

Catalog Information

The information contained in the current LBCC catalog and quarterly schedule of classes reflects an accurate picture of Linn-Benton Community College at the time of publication. However, conditions can and do change. Therefore, the college reserves the right to make any necessary changes in the matters discussed herein, including procedures, policies, calendar, curriculum, course content, emphasis and cost. Students enrolling in LBCC classes shall be subject to rules, limits and conditions set forth in the current catalog, schedule of classes and other official publications of the college. ♦



GENERAL INFORMATION

Academic Calendar

The college operates on a term (also called a quarter) system, with the fall term beginning late September and ending before Christmas. The winter term begins early January and runs until mid-March. The spring term begins late March and ends mid-June. A summer term is held for a 10-week period from mid-June until late August.

Child Care

A modern facility with the capacity to serve 75 children is available on campus in conjunction with the Family Resources Department. Children must be at least two and one-half years of age and not yet eligible for kindergarten. Priority is given to student families on a first-come, first-served basis. Families must place children's names on a waiting list. For additional information contact the Child Care Resource and Referral Office, WEB 101, or the Family Resources Center, 967-8833.

Child Care Resource and Referral is a free service offered to all LBCC credit students. The service helps students match their child care needs with local providers. Additional information about CCRR may be obtained by calling 967-6501.

Credit Hours

Generally, a class that meets one hour per week for one term will yield one credit; a class meeting three hours per week, three credits. A lab class usually yields one credit for each two hours of lab time. Full time enrollment equals 12 credit hours.

Housing

The college does not provide on-campus housing for students but does maintain current listings of housing available in private and commercial dwellings in the area. Information may be obtained at the Student Programs Office in College Center 213.

Parking

Parking is provided for students, staff and visitors on a first-come, first-served basis. Certain areas of the campus are designated for specific parking uses, such as motorcycle parking, bicycle parking, parking for handicapped persons and visitor parking.

Although parking stickers are not required to park on campus, they are recommended. The stickers help the Security and Safety Services Office locate car owners in case of car problems or an emergency. Stickers are free and available in the Security and Safety Services Office, College Center 123.

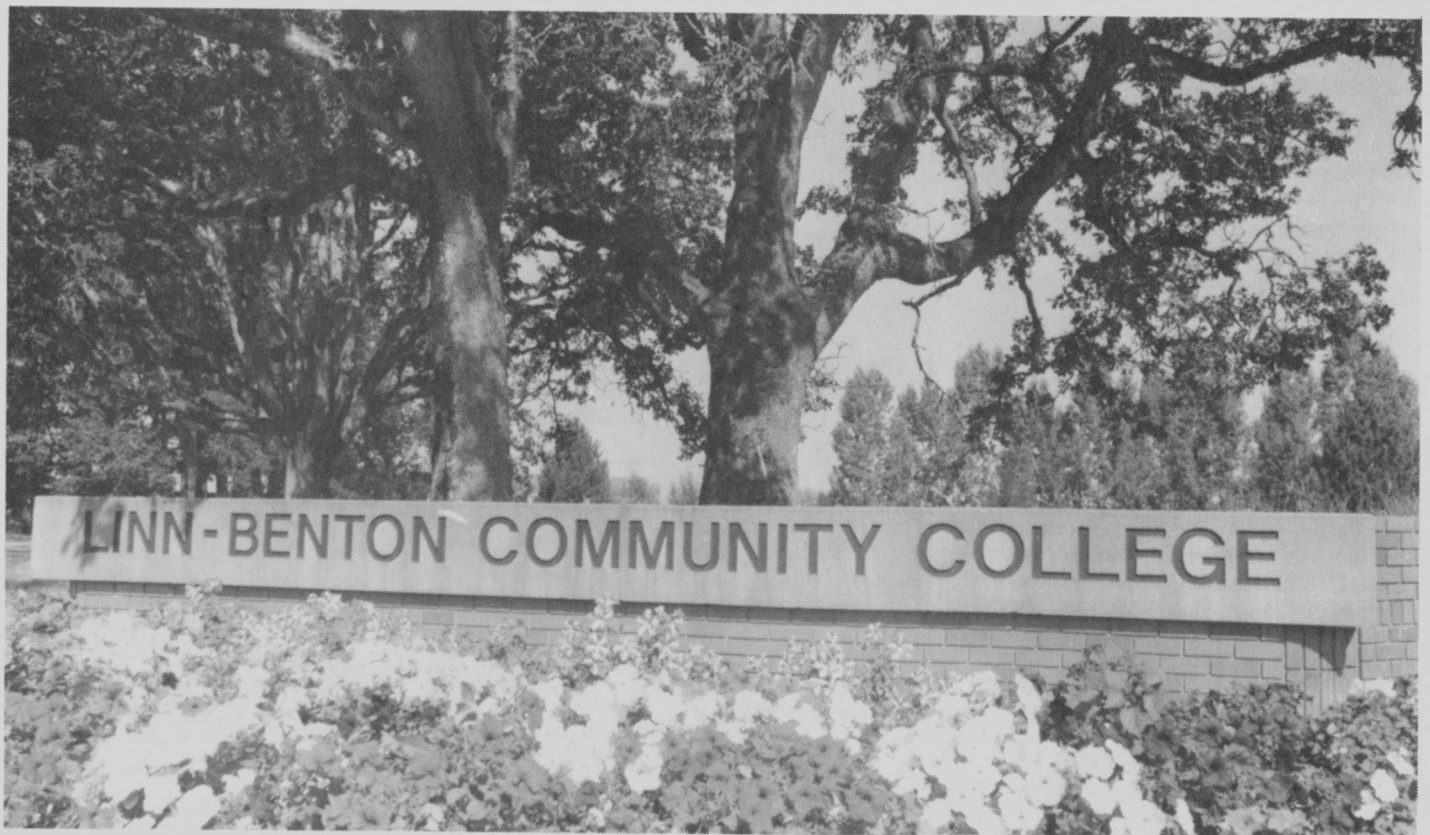
Parking and traffic rules also are available in the Security and Safety Services Office in CC 123. Parking permits for handicapped persons must be obtained from an Oregon Department of Motor Vehicle Office. Cars improperly parked are subject to fine.

Student Health Insurance

LBCC makes available a comprehensive hospitalization and accident insurance policy for students who desire such coverage. The insurance program is available at group rates and includes provision for coverage of the student's dependents. For more information, contact the Student Services Office, Takena 115, or call 967-6105.

Student Rights, Complaints, Freedoms & Responsibilities

The college's board of education has established policy relating to student rights, freedoms, responsibilities and due process. This policy includes opportunity for students to file complaints and outlines the due process procedure. In addition, rules for student conduct are included in the policy. Individuals who want a copy should contact the Associate Dean of Student Services, Takena Hall 107, 928-2361, ext. 443. ♦



ENTERING COLLEGE

Choosing a Career or Program

An important beginning step at Linn-Benton Community College is selection of a program or major. Typically, students attend LBCC to obtain employment training, to improve existing employment skills, to begin a four-year college program or for life enrichment through learning. The Counseling and Career Information Center staff is available to assist prospective students of the college in making decisions about community college studies. Those wanting to enroll at LBCC often make consultation with a counselor a first step. The Counseling and Career Information Center is located on the first floor of Takena Hall.

Admissions/First Stop Center

Diane Watson,
Director of Admissions and Records
967-6106
Takena Hall 115

The Admissions office includes the First Stop Center. The First Stop Center represents the integration, coordination and cooperation of the Takena Hall student services offices. The First Stop staff welcomes student and community members by providing direct answers to questions or by referring students directly to the appropriate service offices. A major goal of the Center is to reduce student frustration in dealing with institutional processes and to increase the number of students who are aware of the many services from which they might benefit.

Admission Requirements

Applicants 18 years of age or older are eligible for admission to Linn-Benton Community College. Students under the age of 18 years of age who have graduated from an accredited or standard high school or who have a GED are eligible for admission to LBCC.

LBCC maintains an "open door" policy on admissions; however, special admission standards may be imposed for specific instructional programs to effectively and responsibly administer the resources of the institution. Such standards are set to ensure each student a reasonable chance of success in a program and shall constitute the minimum standards consistent with the demands of that program. Students will be able to qualify for admission to most programs by demonstrating a mastery of the material contained in appropriate high school courses. Admission to all instructional programs shall otherwise be on a first-come, first-served basis.

Admission to occupational programs varies slightly, but most are available on a first-come, first-served basis. Date of application and completion of admission procedure is an important consideration in many programs.

Linn-Benton Community College provides assistance to people who want to complete a high school education. The college cooperates with local high school districts in providing assistance to the youth of Linn and Benton counties. LBCC supports the law which states that responsibility for providing an education to anyone 17 years of age and younger rests with the local (K-12) school districts. As a result, admission requirements for high school completion programs for students under 18 years of age are as follows:

1. LBCC admits students 16 and 17 years of age who are concurrently enrolled in a local high school into some college classes:
 - a. as evening part-time students
 - b. as summer school students; or
 - c. as part-time students, before 2 pm on a school day, upon completion of LBCC's simultaneous enrollment form and approval by the Director of Admissions and Records.
2. LBCC admits, on a selective basis, students 16 and 17 years of age into the GED program upon completion of LBCC's referral information form and recommendation from the local high school. Behavior patterns, length of time out of school, probability of completion and recommendation of the high school weigh heavily in the college's decision to admit students.

Admission Procedures

Full-time students:

Those seeking admission as full-time students (12 or more credits) must complete the following steps:

1. Fill out an application for admission.
2. Pay a \$20 application fee.
3. Students under the age of 18 must provide proof of graduation from an accredited or standard high school or that they have earned a GED certificate. Proof can be in the form of a transcript, a letter from the school, a diploma or other documentation showing proof.
4. Take the Placement Test.
5. Forward official copies of transcripts directly to LBCC's Admissions Office, if wanting to receive credit for college work at another institution.

Part-time students:

Students enrolling part time (11 or fewer credits) and those enrolling for non-credit classes need only register for desired classes at the appropriate time. Eligibility to enroll in some math and writing courses, however, is based on demonstrated skill level through completing the appropriate prerequisite or by

achieving the appropriate test score on the Placement Test or the Computerized Placement Test. Students should refer to the current schedule of classes for specific courses that require assessment, or they should contact a counselor.

Priority Based on Residency:

Priority is given to applicants based on their residency: first priority to in-district applicants, next to in-state applicants, followed by out-of-state and last priority to foreign residency status.

Official Acceptance:

Students who complete the admission process will receive a "notice of admission." This notice specifies a date and time for student advising and registration.

Note: Part-time students receiving financial aid or veterans' benefits **must** go through the same admission procedure that is required of full-time students.

Those part-time students who plan to earn a certificate or degree at LBCC are encouraged to complete the admission process the same as full-time students. The process must be completed before a certificate or degree can be granted.

Foreign Student Admission

Linn-Benton Community College intends to serve educational needs of residents of the Linn-Benton Community College district. College programs and services are planned primarily to serve students who live permanently in the local area. Therefore, foreign student enrollment at LBCC is limited and selection is based upon fulfillment of specific admission requirements and availability of space. No student visas (I-20's) to attend Linn-Benton Community College will be issued to students still in their native countries. Nor will students possessing tourist or visitor visas be considered eligible to receive a student visa. The deadline for foreign student applications is one month prior to the beginning of the term in which the student plans to attend. Foreign students needing to increase their writing/speaking skills, as determined by the Placement Test, may be required to take academic English-as-a-second language classes. Questions about specific requirements may be addressed to the Director of Admissions and Records, Linn-Benton Community College, 6500 SW Pacific Blvd., Albany, OR 97321-3774.

Special Admission Programs

Although Linn-Benton Community College maintains an "open door" policy on admissions, special admission standards may be required for specific instructional

(continued on next page)

programs. These standards are set to effectively and responsibly administer the college's resources and to ensure that each student has a reasonable chance of succeeding in a program. The special admission requirements are based on the minimum standards necessary to meet the demands of the particular program. A student will always be able to qualify for admission to any program by demonstrating a mastery of the material contained in appropriate high school courses. Admission to all other college programs shall be on a first-come, first-served basis.

Skill assessment for admission to these programs is usually measured by the Placement Test or by completing a prerequisite course with a grade "C" or higher. Placement Test scores are valid for seven years for entry into special admissions programs. Students who do not meet the minimum admission standards for programs that require a course prerequisite or competency may petition for admission if they have been denied admission based on the minimum standards. Petitions will not be accepted based on any other criteria used in the selection process.

Students may file a petition if they believe they have extenuating circumstances that may not have been considered during the routine screening of applications by the Admissions Office. An Admissions Petition form must be completed, and students may attach documents supporting their request. An Admissions Review Committee of three staff members from the Student Services Division will review all petitions and make recommendations to the Director of Admissions and Records.

Programs in Nursing and Dental Assistant, as well as other technical programs, usually have waiting lists. Students interested in one of these programs should complete the application process outlined. Selection priority for special admission programs will be given to qualified applicants who are residents of the Linn-Benton Community College district. Students who reside outside the LBCC district will be admitted only after all qualified in-district residents have been admitted. If you have any questions about your residency status or you live near a county border, please check with the Admissions Office. For additional information on any selective admission program, contact the Admissions Office.

Dental Assistant:

The Dental Assistant program is offered once each year, beginning with the fall term and ending the following summer term. Dental Assistant applicants must: (1) have application and transcripts on file by a specified date (contact the Admissions Office for date); (2) supply to the Admissions Office proof of high school graduation or GED; (3) complete the Placement Test with a standard reading score of 65 or better or successfully complete 1.175 Reading Improvement 1; (4) attend a career exploration session; (5) if accepted, the following must be completed and supplied

before the first day of class: complete physical exam, a negative tuberculin skin test or chest x-ray, proof of immunization against measles, start immunization series against Hepatitis B (a series of three injections).

The application dates and deadlines are subject to change. Please contact the Admissions Office for the current bulletin.

Please Note: Occupational health hazards include the use of latex gloves and mask to be worn. Applicants with skin or breathing disorders should meet with the Dental Assistant advisor prior to applying for admission. In addition, dental assisting can intensify Carpal Tunnel Syndrome. Therefore, applicants with this condition also should meet with the Dental Assistant advisor prior to applying for admission.

Electronics Engineering Technology:

Students wanting to enroll in the Electronics Engineering Technology program must take the Placement Test and demonstrate ability to enroll in MTH 111T College Algebra: Technical and WR 115 Introduction to Writing or complete the prerequisite courses with a grade of "C" or better.

Interest in the Electronics Engineering Technology program must be demonstrated by filling out an application form on which students declare, by the appropriate code, Electronics Engineering Technology as their major. Applications may be submitted beginning in January with a deadline in June. Selection and approval will begin in June and continue until the program is full. The application dates and deadlines are subject to change. Please contact the Admissions Office for the current bulletin. Notification of admission to the program will be made in late summer.

Nursing:

Applicants for the two-year program beginning fall term must: (1) have application (and transcripts if needed) on file by a specified date (contact the Admissions Office for date); (2) supply proof of high school graduation or GED; (3) complete the National League for Nursing Pre-Admission Examination (dates for administration of this exam are available through the Student Assessment Center—test scores are valid for seven years); (4) have completed one year of high school chemistry with a grade of "C" or better or completed CH 112 Chemistry for Health Occupations with a grade of "C" or better within the last five years; (5) complete the Placement Test; (6) if accepted, complete MTH 65 Elementary Algebra by the first day of classes; (7) if accepted, supply proof of the following by the first day of classes: a complete physical exam, a negative tuberculin skin test or chest X-ray, current CPR Card Level C and appropriate immunizations, including Hepatitis B.

The admission procedure is reviewed annually for the ADN program and therefore subject to change. Please contact the Admissions Office for the current bulletin.

Water/Wastewater Technology:

Students applying for the one- or two-year Water/Wastewater program must demonstrate the ability to enroll in MTH 65 Elementary Algebra and WR 115 Introduction to Writing. This ability may be shown by an appropriate Placement Test score or by completing the prerequisite courses with a "C" or better grade shown on a college transcript.

Interest in the Water/Wastewater program must be demonstrated by filling out an application form in the Admissions Office declaring Water/Wastewater as a major. Applications may be submitted beginning in January, with a deadline in May. Selection and approval will begin in May and continue until the program is full. The application dates and deadlines are subject to change. Please contact the Admissions Office for the current bulletin.

Classification of Residency

Oregon Revised Statute 341.625 provides that a community college district shall establish tuition rates and fee schedules, subject to approval of its board of education. Different tuition rates and fee schedules may be established for students who reside in the operating district; students who do not reside in the operating district, but in the state of Oregon; and students who do not reside within the state. An additional rate may be established for foreign students.

A resident, for tuition and fee-paying purposes at Linn-Benton Community College, is a student who has lived in Oregon as a permanent resident for no less than 90 continuous days immediately preceding the first day of classes for the quarter in which residency is in question and who has demonstrated the intent of making Oregon the state of permanent residency. A list of acceptable documents that demonstrate a student's intent to reside in Oregon on a permanent basis is available from the Admissions Office. Permanent residence is defined as the home to which one intends to return after any absence and in which one's dependents reside for an unlimited period of time.

To qualify as a resident of the state, a student must be 18 years of age or older. If under 18 years of age, the student must have a permanent residence independent of that of his or her parent(s) or legal guardian; otherwise the residency of the student shall be the same as his or her parent(s) or guardian. An affidavit of non-support will be required for students under 18 years of age to show proof of emancipation.

The following instances will be used to define extraordinary circumstances in determining residency status for the state of Oregon:

1. A veteran who has established a permanent residence inside the state within 90 days of separation or discharge from the service.

ENTERING COLLEGE

2. A person on active military duty or a government employee whose place of work is assigned within the state; i.e., Defense Department and foreign embassy.
3. A student whose non-resident parent or legal guardian moves to the state and establishes a permanent residence during the school term will be entitled to register as a resident student at the beginning of the next term.
4. A released Oregon state prisoner living in Oregon will be considered a resident regardless of the person's residency prior to his or her sentencing.
5. An incarcerated student paroled to an agency in Oregon or paroled in order to attend Linn-Benton Community College specifically.
6. A senior citizen, age 62 years or older, who has established a permanent residence in Oregon.

All foreign students enrolled on student visas and who have not obtained immigrant visas will not be allowed to change residency status during the duration of their enrollment at LBCC.

The guidelines outlined are general in nature and may require additional clarification. Questions concerning residency status should be directed to the Director of Admissions and Records.

Registration

Sue Cripe, Registrar
967-6105
Takena Hall 115

Registration for Credit Classes

1. Complete all admission requirements
2. Preregistration advisor conferences are required for:
 - a. all new students registered for 12 or more credit hours;
 - b. students sponsored by certain agencies;
 - c. students on probation or in danger of failure; and
 - d. students changing their majors or those who have questions regarding their majors
3. All continuing students should register during the continuing student registration period to ensure a space in classes; spaces remaining after continuing student registration will be made available to both new and continuing students.
4. Registration materials are available in the Registration Office lobby. When all forms are completed, they are to be presented at the registration windows.

5. Full tuition payment is required on the day of registration. The Financial Aid Office may be contacted for assistance in tuition payment. Tuition is paid at the Business Affairs Office on the first floor of the College Center. Students whose tuition is to be paid by a special program, agency or financial aid must confirm the credit with the cashier the same day as registering.
6. Students who are unable to stand in line due to physical limitations may obtain a "Handicapped Student Line Reservation Slip" from the Registrar's secretary.

A Social Security number is used for positive identification of records. An identification number may be requested from the Registration Office for students not possessing a Social Security number.

Registration for Extended Learning Classes

Registration materials for Extended Learning classes, both credit and non-credit, are available in class during the first and second class meetings. Students may preregister at the campus Registration Office or the off-campus Extended Learning centers.

Waiting Lists

Students may ask at the Registration counter or Extended Learning Center to be put on a computer waiting list for classes that are full. Students are not registered for the class and will not be charged for it. The are only on the waiting list in case a seat becomes available. Students need to contact the instructor by the first class to establish their intent. The class is added to the student's schedule when he or she presents a signed Waiting List Approval Form and a Registration or Add Form at the Registration window or center office before that registration deadline and pays the tuition that same day.

Schedule Changes

A student may add a full-term course during the first week or, with the instructor's written permission, during the second week.

Registration deadlines for shorter classes are printed in the quarterly Schedule of Classes.

A student may officially withdraw from a full-term class up to the end of the seventh week. Withdrawal deadlines for shorter classes are printed in the quarterly Schedule of Classes.

Students changing to another section of a course due to cancellation of a class or for other reasons must officially add the new section.

Auditing Classes

Students may request audit status at the time of registration or later during the add period for that class. Charges for auditing are the same as for regular credit enrollment.

The final grade assigned a student with audit status shall be based solely on classroom attendance and may be entered as an "AU" or a "Y" (no basis to issue grade; no credit earned) at the discretion of the instructor. The instructor has the right to require 100 percent attendance when audit status is requested.

Tuition & Fees

Tuition Schedule

At the time of publication of this catalog, the tuition and fee charges for credit and non-credit classes had not been determined for the 1993-94 school year. *The tuition and fees shown below were in effect for the 1992-93 school year. Please consult the latest LBCC Schedule of Classes to determine current tuition and fees.*

Credit Classes	District	Out-of-State	Foreign
Per credit	\$ 28	\$115	\$ 130
(15-20 credits)	\$420	\$1,725	\$1,950

Note. Tuition and fees are subject to change by the LBCC Board of Education.

Non-Credit & Extended Learning Classes

Contact Hours	Reimbursable	Non-Reimbursable
1 - 6	\$ 9.50	\$ 10.50
7 - 12	15.50	16.50
13 - 18	23.00	25.00
19 - 24	29.00	33.50
25 - 40	38.00	43.50
41 - 48	58.00	67.00
49 - 60	77.50	81.50

Note: This schedule is subject to change; an additional supply and lab fee may be charged.

Special Fees

Application for Admission	\$20
Course Add	No charge
Course Drop	No charge
Credit by Examination	30% of tuition per credit
Photo ID card	\$5
Placement Test	\$2 per test

Late registration:

12 credit hours or more, \$2 per day beginning first day of classes	
Official copy of LBCC transcript	\$2
Unofficial copy of LBCC transcript	\$.50
Physical education activity fees (some courses)	variable

Student Activity and Program Fee:

Each student is assessed a \$1.365 per credit charge, to a maximum of \$16.38, as a student activity and program fee. The fee is included in the \$28 per credit tuition and fee charge listed above. Income derived from the fee is used to support a variety of extracurricular activities and programs, including athletics, artist and lecturer guest appearances, clubs and organizations, and a variety of recreational and social activities. More information about the activities supported by the fee is available in the Student Programs Office, College Center Building, room 213.

Note. These fees are subject to change.

Student ID Card

A student ID card will be required in some areas on campus, including the Learning Center, Business Affairs Office, Assessment Center and Computer Lab. The card also is used for verification and identification of students receiving financial aid and charging books. The library is in the process of being automated, and eventually the ID card will be used for checking out books. The card also provides verification that you are a student to merchants in the local community. Many merchants provide discounts to LBCC students.

There is a one-time charge of \$5 for the card, and it will be re-validated free each term you register. There will be a charge for re-issuing lost cards.

Any LBCC student is eligible for a picture ID card; however, they will be issued only on the main campus. Plans are being made to make the card available at the off-campus centers in the future.

Refunds

To receive a tuition refund, students must submit a schedule change form to the Registration Office within the first two weeks of a full-term class. Refund deadlines for shorter classes are printed in the quarterly Schedule of Classes. Refunds will be mailed after the second week of classes.

Classes cancelled by the college: full refund or enrollment in another class, provided the student notifies the Registration Office.

Academic Regulations

Transferring LBCC Credits

Lower division credits may be transferred to most colleges throughout the United States. Lower division students may transfer up to 108 credit hours to schools in the Oregon State System of Higher Education.

Students planning to transfer credits to another institution are encouraged to work with an LBCC advisor in planning an appropriate transfer program. It is also recommended that students contact the four-year college or university to plan a transfer program of classes.

Student Credit Load and Full-Time Status

Students are considered full time if registered for 12 or more credit hours. Students may mix schedules by registering for some general studies courses and some professional/technical courses. If students must work part time while attending the community college, they should bear in mind that most classes require one or two hours of preparation for each class hour and should adjust work schedules accordingly or register for fewer class hours. In most areas, there are suggested curriculums to cover one or two years of study; working students may schedule a two-year-equivalent curriculum over an extended period of time.

Students in lower division studies should plan to schedule an average 15 credits per term to accumulate 90 credits in a six-quarter (two-year) period. No more than 20 credits may be taken in any single term without a counselor's signature.

Credit by Examination

Students who believe they have mastered the material presented in courses listed on LBCC's Course Challenge List may apply for Credit by Examination. To apply, students must be currently enrolled in at least six credit hours.

Application for Credit by Examination must be completed in the Student Assessment Center, second floor of Takena Hall, by the end of the second week of a term and the examination must be completed by the end of the seventh week of the same term.

A non-refundable 30 percent of tuition per challenged course per credit hour processing fee must be paid before the examination is given. An additional testing fee also may be required.

For more information about LBCC's Credit by Examination program, stop by the Student Assessment Center in Takena Hall or call 967-6553.

College Level Examination Program

LBCC is an approved open center for administration of the College Level Examination Program (CLEP). In addition, LBCC accepts CLEP scores for college credit, which may be posted to transcripts under "advanced standing." CLEP examinations are administered through the Student Assessment Center. For a list of CLEP tests accepted at LBCC, contact the Student Assessment Center in Takena Hall or call 967-6553.

Advanced Placement Tests

Students who complete college-level work in high school under the Advanced Placement Program sponsored by the College Entrance Examination Board and who receive satisfactory grades (3, 4 or 5) in examinations administered by the Board may, upon admission to LBCC, be granted comparable credit towards a degree. All examinations are subject to review and approval by the appropriate college division.

Students must request that Advanced Placement scores be forwarded to the Admissions Office.

Repeating a Class

In general, a class that a student has already completed for credit at LBCC cannot be repeated for credit. Staff may disenroll students who register for credit in these courses. Any exceptions must be authorized in writing to the Registrar by the appropriate faculty members and dean or associate dean.

LBCC students will not receive credit for courses clearly identified as being prerequisites to LBCC classes already completed by the student with a grade of "C" or better. Staff may disenroll students who register for credit in these courses. Any exceptions must be authorized in writing to the Registrar by the appropriate faculty member and dean or associate dean.

If a student earns a higher grade upon repeating a class, a request may be made at the Registration Office to recalculate the grade point average using the higher grade. The lower grade will be preceded by an "R" on the transcript and removed from credit and point totals.

Course Number Change

In the event a course number has been changed from a vocational number to a transfer level number, the transfer level number will appear on the permanent record only for those who took the class after the change was approved.

Grading System

- A: Excellent work; 4 quality points per credit.
- B: Above average work; 3 quality points per credit.
- C: Average work; 2 quality points per credit.
- D: Below average work; 1 quality point per credit.
- F: Failing work, no credit given; 0 quality points per credit.
- IN: Incomplete work.
- W: Withdrawal*; no credit earned (not computed in GPA).
- Y: No basis to issue letter grade; no credit earned (not computed in GPA).
- NP: No pass; no credit earned (not computed in GPA).
- WP: Work in Progress; no credit earned (not computed in GPA).
- AU: Audit; no credit earned (not computed in GPA).

*A "W" is not recorded for individuals who withdrew prior to or during the first two weeks of the quarter.

Incomplete Rule: Work must be completed by the end of the following term, with the exception of summer term. If a grade is not submitted by the instructor, the "IN" is changed to a "Y." "IN" grades are not normally awarded in variable credit classes.

Grade Point Average (GPA) is calculated by dividing total quality points by total GPA hours. (Grades not included in GPA: IN, W, Y, P, NP, WP, AU and repeated grades preceded by R.) Grade reports and transcripts show both current GPA (one-term) and cumulative GPA (all classes taken at LBCC).

Standards of Progress for Graduation

To qualify for graduation, students are required to meet all graduation requirements and to complete 70 percent of all courses attempted. "F," "NP" and "Y" are non-completion grades.

Pass/No-Pass Option

Courses listed in the schedule with an "OPT" designation indicate that students have the option of taking the course for a letter grade or on a pass/no-pass (P/NP) basis. It is the student's responsibility to check the class schedule to determine whether or not a class has the pass/no-pass option. Requests submitted in A-F classes have no effect on the grade issued by the instructor. The maximum number of "P" credits allowed toward an LBCC degree is 16, not including those with an obligatory "P" grade. Requests for "P" grades may be processed through the Registrar's Office or through the instructor.

It is not advisable for a student to choose the "P" grade for major course work in his or her field of study. Students planning to transfer to a four-year institution should check that institution's requirements regarding "P" grades.

Academic Probation

Students registered for 12 or more credits after the second week of the term are subject to academic probation regulations.

Full-time students are placed on academic probation if the accumulative grade point average drops below 2.00.

Students are expected to complete those courses for which they have registered. A full-time student is placed on academic probation upon non-completion of 50 percent of the credits registered for after the second week of the term.

A student must maintain a grade point average of at least 2.00 in all specific major requirements in order to continue in a program. A student dropped under this requirement may petition the department for reinstatement. Some programs may have a more restrictive requirement, which will be indicated in the college catalog under that program.

A student who has been on academic probation for three consecutive terms is subject to suspension.

Honor Roll

Students who obtain a grade point average of 3.50 or better with no incompletes and have completed a 12-credit load or more of graded work (not including P/NP) are placed on the Honor Roll list for that quarter.

Records Information

In accordance with the Family Education Rights and Privacy Act, LBCC considers the following to be directory and, therefore, public information: student's name, address and telephone listing; major field of study; participation in officially recognized activities and sports; weight and height of athletic team members; school or division of enrollment; and degrees and awards received. Students who do not want to have any of the above information released by the college must complete a directory deletion form in the Registration Office.

Transcripts and Records

LBCC official student transcripts may be ordered at the transcript window at a cost of \$2 each. **(This fee is subject to change.)** Unofficial copies are available for 50 cents each. Processing of transcript orders takes up to one week. Students have access to transcripts and records as outlined in "Policy on Students Rights, Freedoms, Responsibilities and Due Process."

It is the policy of the LBCC Board of Education that records belonging to a student who has failed to repay an emergency loan, deferred tuition payment or other debt or obligation shall not be released, either to the student or another institution, as long as such obligations are outstanding.

Withdrawal from School

Individuals who find they can no longer attend classes should officially withdraw from school. Students who withdraw within the refund period may expect a tuition refund (see "Refunds"). ♦



FINANCIAL AID & VETERANS

Financial Aid and Veterans

Lance Popoff, Director of Financial Aid
967-6104
Takena Hall 119

Financial aid at Linn-Benton Community College is intended to provide opportunity for students to attend college who cannot pay the full cost of a college education. Funds are intended to supplement family and student resources through loans, grants and/or part-time employment.

The Financial Aid Office provides information to students and prospective students regarding availability of financial aid, eligibility requirements for receiving aid and application procedures for financial assistance.

Certification and administration of veterans' educational benefits also are provided through the Financial Aid Office.

Eligibility Requirements

You may be eligible to receive financial aid if you:

- are enrolled at least half-time, which is six credit hours, for the Federal Stafford, PLUS, SLS and Perkins Loan programs.
- fully admitted, degree-seeking students enrolling for less than half-time status may be eligible to receive Pell Grants.
- have been admitted to the college as a regular student (one who is enrolled to obtain a degree or certificate) in an eligible program that is at least one year in length.
- have signed an Anti-Drug Abuse Certification.
- have registered with the Selective Service, if required to do so.
- have a high school diploma or GED.
- are not attending an elementary or secondary school.
- are a United States citizen or an eligible non-citizen
- are not in default of any federal loan program nor owe a refund on any federal grant program.

Program Eligibility

- Eligible programs need to be at least one year in length and lead to a degree or certificate.
- Two-year programs that are acceptable for full credit toward a baccalaureate degree also are eligible, even if they do not offer degrees.
- Eligible one-year programs must provide training to prepare students for "recognized occupations" as defined in the Dictionary of Occupational Titles.

Application Procedures

LBCC uses the Free Application for Federal Student Aid (FAFSA) to determine the amount a family and student can contribute to the cost of a college education, the college will accept any of several federally approved financial aid applications. The use of federally approved aid applications assures every applicant fair and consistent treatment. The FAFSA is used to apply for federal and state grants, work programs and loans. No processing fee is charged for filing the FAFSA. It takes three to four weeks to process the FAFSA. LBCC then receives the data so that the Financial Aid Office staff can begin determining the applicant's financial aid eligibility.

Application forms are available from the LBCC Financial Aid Office, high school counselors or agency personnel. The applicant completes and mails the application form to the FAFSA Central Processor, which forwards information to the Pell Grant Office and LBCC. Pell Grant Student Aid Reports (SAR) are sent to the student only. The student must submit all copies of the SAR to the Financial Aid Office *before* payment can be made. When information is received from the Central Processor, the LBCC Financial Aid staff may request additional information from the applicant, such as proof of independence, information regarding aid received at other institutions or tax forms.

Application for aid may be made throughout the year; however, because financial aid funds are limited, students applying after April 1 may find some programs no longer have funds. Applicants are notified by mail concerning eligibility for aid.

Prospective aid applicants must be fully admitted to LBCC as regular students (even if attending less than full time) *before* their aid applications will be processed and they are notified of aid offers. Please contact the LBCC Admissions Office for applications and information regarding the admissions process.

Warning!!

If you receive federal and/or state aid based on inaccurate information, you will have to pay it back; you also may have to pay fines and fees.

If you purposely give false or misleading information on any documents used to determine your aid eligibility, you may be subject to a fine of \$10,000, receive a prison term or both.

Student Costs

Individual costs vary according to course of study, transportation requirements, housing and other factors. Examples of average student costs for nine months (three school terms) are:

SINGLE (living with parents)	
* Tuition & Fees	\$1008
* Books & Supplies	\$600
Living Expenses	\$2,880

SINGLE (away from parents' home)	
* Tuition & Fees	\$1,260
* Books & Supplies	\$600
Living Expenses	\$6,255

* Tuition estimates are provided here so total costs can be compared. Tuition and fees for the 1993-94 school year had not been established at the time this catalog was published. Current tuition rates may be found in the quarterly schedule of classes. Additional tuition charges are assessed for non-resident and foreign students.

Books and supply costs vary greatly. Check with the Admissions Office for current estimates in individual programs.

Tuition Installment Plan

Any student enrolling for four (4) or more credit hours and who does not have any outstanding charges owed the college is eligible to participate in the Tuition Installment Plan. A down payment equal to three credit hours (currently \$84) plus a \$7 processing fee must be paid when registering. The balance of the tuition must be paid in two equal installments during the term. A late fee of \$10 per term will be assessed if payment is not made according to the terms of the agreement. Applications for the Tuition Installment Plan are available at the Registration and Business Affairs offices.

Types of Assistance

Federal Pell Grants:

Grant awards generally are available to students who enroll for six or more credits in any term. Awards usually range from \$400 to \$2,300 for an academic year. The federal government determines the amount of award based on the applicant's financial need. Students who have bachelor degrees are not eligible for Pell Grants. Fully admitted, degree-seeking students enrolling for less than half-time (fewer than six [6] credits) status may be eligible to receive Pell Grants.

Federal Supplemental Educational Opportunity Grants:

The Supplemental Educational Opportunity Grant (SEOG) is an award made to students with exceptional financial need and is linked with Pell Grant eligibility. Grants vary from \$100 to \$900 per academic year, depending on need of the applicant. Students who have bachelor degrees are not eligible for SEOG Grants.

State Need Grants:

State Need Grants are made from state and federal funds and are awarded by the Oregon State Scholarship Commission to eligible Oregon residents. A recipient must have applied for the Pell Grant, be enrolled as a full-time student and not have earned a baccalaureate degree. Oregon Need Grants are transferrable to other Oregon institutions and renewable for a maximum of 12 quarters.

LBCC Board Scholarships: (Scholars Award)

A minimum of 22 full-tuition scholarships to Linn-Benton Community College are awarded annually to currently enrolled high school seniors in Linn and Benton counties. Applicants must have an overall GPA of 3.00. Special consideration will be given individuals who have shown outstanding ability in a subject area that they will pursue in college. In addition to full academic year awards, some one-term awards also may be granted. Additional information is available from high school counselors or the LBCC Financial Aid Office.

Libby Vocational Scholarships

The Libby Scholarship fund was established to encourage and assist Willamette Valley students in pursuing an education in a professional technical field. Applicants must have resided in the Willamette Valley for at least one year, demonstrate need for financial assistance and enroll at least half-time (six credit hours) in one of LBCC's professional technical programs. Scholarships are awarded up to \$200 per term and may be renewed for up to six terms. Additional information about eligible professional technical programs and renewability criteria is available from the Financial Aid Office.

Talent Recognition Awards:

Full and partial tuition awards are made available annually to high school seniors and other prospective students who have demonstrated outstanding ability in a given area. Students with talent in athletics, drama, journalism, agriculture or business may apply. Interested students should contact the appropriate LBCC division office.

Program Grants:

One-term, full and partial tuition grants are available to new students who have not previously attended LBCC on a full-time basis. Applicants must have at least a 2.00 GPA, two letters of reference and attend LBCC full-time the term for which the award is granted. To be considered, applicants must declare specific majors. Applicants who are undecided or who intend to pursue an Associate of General Studies degree cannot be considered. Students are limited to one award and cannot receive Board or Talent awards in addition to Tuition Grants. Contact LBCC division offices for more information and an application.

LBCC Foundation:

The Linn-Benton Community College Foundation plays a key role in providing grant-in-aid monies, emergency grants and loan assistance for students of LBCC. The LBCC Foundation Board of Trustees and friends of the college contribute both time and money to make approximately 36 different grants and loans available. The LBCC Financial Aid Office and all high schools in Linn and Benton counties have brochures available detailing award criteria, including how to apply for these funds.

Federal College Work Study:

A federally supported Student Work Program provides on-campus employment for students with financial need. Work schedules are assigned by supervisors, and students are paid \$4.75 an hour or higher for work performed. Higher wages are paid to returning student workers and for jobs requiring special skills. Employment during the school term may not exceed 20 hours per week. When possible, the student is placed in a job compatible with his or her career goal. Students who have bachelor degrees are eligible to participate in the Federal College Work Study Program.

Student Loans

Several different student loans are available. However, if borrowed, they all require repayment. Think before you borrow and borrow only what is needed for educational expenses: convenience now may result in financial hardship later.

Failure to repay student loans will result in a damaged credit rating and make credit difficult to obtain in the future.

Federal Perkins Loans (NDSL):

The Perkins Loan is a federally supported loan program provided by the college to needy students. Application is made through the FAFSA. Eligibility is based upon need, other resources and availability of funds. Typically, the college awards a maximum of \$500 per term of attendance. Loan repayment and interest charges of 5 percent begin nine months after the borrower ceases half-time enrollment. The aggregate maximum for a student attending a two-year college is \$8000 (this includes Perkins Loans borrowed from previously attended schools). Additional information regarding eligibility, deferment and cancellation provisions is available at the Financial Aid Office. Students who have bachelor degrees are eligible to participate in the Perkins Loan Program.

Federal Stafford (formerly Guaranteed)

Student Loans:

Loans of up to \$2625 per nine-month year are available to first-year students through local banks. Students in the second year of their programs (45+ credits) may borrow up to \$3,500 per the nine-month academic year. The aggregate maximum amount for Stafford Student Loans that undergraduates may borrow is \$23,000. A separate application is required

for this program. Students must first apply for the Pell Grant by completing the FAFSA. In addition, the FAFSA will be used to determine eligibility for the loan. Prospective loan borrowers also are strongly encouraged to apply for grants administered by the state aid agencies in their state of legal residence. Non-Oregon residents can obtain the addresses of their state grant programs from LBCC's Financial Aid Office. At the time of application, a 6 1/2 percent guarantee and origination fee is charged. Loan repayment and interest charges begin six months after the borrower ceases half-time enrollment. Application forms and additional information regarding deferment and cancellation provisions are available at the Financial Aid Office, the Oregon State Scholarship Commission or their lender.

Eligibility and interest rates on the Perkins and Stafford Loan programs are determined by the federal government and are subject to change.

Unsubsidized Federal Stafford Student Loans:

Students not eligible for subsidized Stafford Loans are eligible to receive unsubsidized loans regardless of need. Loan conditions are similar to the subsidized Federal Stafford Student Loan except that the borrower must pay the interest on the loan while attending school.

Students may borrow up to the same limits as their Federal Stafford Loan limits less any subsidized Federal Stafford Loan received.

Federal Plus Loan:

These loans are available to the parents of dependent students regardless of need. Students must first apply for the Stafford Loan before parents may apply for the Plus Loan. Interest is variable but cannot exceed 10 percent. A loan fee of 5 percent is deducted from the amount borrowed. Repayment begins 60 days after the funds are disbursed. Parents may borrow up to the student's estimated cost of attendance minus any financial assistance. Applications are available at the Financial Aid Office.

Federal SLS Loans:

These loans are available to independent students. The interest rate is variable but cannot exceed 11 percent. A loan fee of 5 percent is deducted from the amount borrowed. Interest accumulates from the time the loan is received. Repayment of interest and, in some cases, principal begins after the funds are received. Students must first apply for a Pell Grant and a Stafford Student Loan. Students may borrow up to \$4,000 per year. The aggregate maximum amount of SLS Loans undergraduate students may borrow is \$23,000. Applications are available at the Financial Aid Office.

(Continued on next page)

Eldon Schafer Student Loan Fund:

The Eldon Schafer Loan Fund provides loans for students with short-term needs. Students may borrow up to \$75 beginning the third day of the term through the ninth week of the term. No loans will be made during final exam week or between terms. Only one loan per student per term is permitted. A \$3 loan fee and 12 percent per annum interest is charged.

Loans must be repaid within 45 days or by the first day of the last month of the term (whichever occurs first). Applications are available in the Financial Aid Office.

Community Scholarships:

Several community service organizations and business establishments offer scholarship assistance for LBCC students. Interested individuals may contact the Financial Aid Office or high school counselors for additional information.

Financial Aid Payments

Financial Aid payments are made each term at the Business Affairs Office on the first floor of the College Center (CC-130). The following conditions must be met before financial assistance can be disbursed:

1. Must be regularly admitted (both full- and part-time students).
2. Must be enrolled in an educational program, of at least one year in length, that leads to a degree or certificate.
3. Must sign and return to the Financial Aid Office an "Offer of Financial Aid" letter.
4. Must obtain an instructor's signature verifying class attendance (forms are available in the Financial Aid Office).
5. Must enroll for six (6) or more credit hours.
6. Must be maintaining satisfactory academic progress.

Financial aid is disbursed to students after the refund period each term. Typically, this means aid monies are available during the third week of each term.

Note: If aid was based on full-time attendance and you elect to register for fewer credit hours, your financial aid must be adjusted to reflect the reduction in course load based on institutional financial aid awarding policies. Generally, this will result in a reduction of and a delay in the aid you are eligible to receive.

Federal Stafford Loan Recipients:

Federal regulations require that subsequent loan disbursements be returned to the lender if at anytime you enroll for or complete less than six (6) credit hours during the period of the loan as indicated on your Stafford Loan application. Your loan application will be voided, and you must start the loan application process over again.

First-time Stafford and SLS loan borrowers at LBCC must wait until 30 days after the start of classes to receive their initial loan checks.

Repayment and Student-Owed Refunds to Grant and Loan Programs

If students receiving financial aid officially drop part of their course load or completely withdraw from school during the regular two-week refund period, the total refund due will be returned to the financial aid programs and not the students. Two exceptions to this policy exist. If students partially reduce their course load but retain the enrollment level used to determine their financial eligibility, i.e. full-time (12 or more hours), three-quarter time (9 to 11 hours) and half-time (6 to 8 hours), then the tuition refund is returned to the student. Secondly, if the college cancels courses used to calculate aid eligibility, then the tuition refund is returned to the students and not the federal aid programs.

In addition, students receiving cash payments from financial aid programs (not including the Federal Student Work Program or the Federal Stafford Loans Program) who withdraw from school or stop attending classes may be required to repay a portion of the aid received. More detailed information is given in the financial aid brochure, the award letter and the current schedule of classes.

A student who is no longer attending classes has the responsibility of contacting the Financial Aid Office. No additional financial aid will be paid a student who owes a repayment for early withdrawal.

Prorata Refunds:

If students receiving financial aid and attending LBCC for the first time withdraw or otherwise do not complete their first term, they are eligible for prorated tuition refunds through 60 percent of the term. Refunds will be repaid first to any federal loan and then to grant programs from which students received aid. Tuition refunds cannot be refunded to student aid recipients.

Academic Standards and Eligibility

Students receiving financial aid must fulfill the standards of satisfactory academic progress outlined in the financial aid brochure and the award letter.

Additionally, any student not in good standing with the institution, i.e. academic or disciplinary suspension, will not be eligible for further aid or certification until such time as the student has been returned to good standing.

Veterans' Affairs

The Veterans' Affairs coordinator is an LBCC staff member who provides assistance to veteran students and eligible dependents regarding college-related matters. A list of LBCC courses approved for benefits is available, as well as information regarding certification and general payment policies. The coordinator will assist veterans and eligible dependents in applying for benefits. Academic advising, counseling for veterans and referral assistance also is available. The Veterans' Affairs coordinator is located in the Financial Aid Office.

Standards of satisfactory progress for students receiving veterans' benefits:

Students receiving Veterans' Administration (VA) benefits are responsible for demonstrating satisfactory progress toward a degree or certificate in a VA-approved program of study. *The VA will only pay for classes that advance students toward their established program goal.*

School admission and evaluation of prior credit:

Veterans must become fully admitted students which requires:

1. Formal application for admission to the college.
2. Completion of a Placement Test (unless waived by adequate transfer credit).
3. Having official transcripts of all college credit earned at other schools sent to the LBCC Admissions Office.
4. Requesting an official credit evaluation of all prior or transfer credit.
5. Attendance at a scheduled LBCC new student orientation.

Grades:

Satisfactory grades are "A," "B," "C," "D" and "P." All non-punitive grades ("Y," "W," "NP" and "IN") that reduce the student's total credits to less than the original certification amount are reported to the VA. Any benefits that have already been paid for courses in which non-punitive grades are received must be repaid to the VA.

Note: The VA may deduct the overpayments from future benefits when due. Any course in which an "F" grade was received may be retaken with benefits only if that specific course is required for graduation. The VA allows one year for "IN" grades to be completed. Failure to complete an "IN" within one year may result in an automatic reduction of benefits. However, college policy requires incompletes to be made up within one term. (See Incomplete rule under Grading System in the Academic Regulations section.)

FINANCIAL AID & VETERANS

Grade Point Average:

A cumulative GPA of 2.00 is the minimum acceptable GPA necessary to qualify for any degree, diploma or training certificate from Linn-Benton Community College.

Unsatisfactory Progress:

Students will be notified of unsatisfactory progress at the end of any term that they fail to meet minimum standards of progress. A probation letter will be sent to students whose cumulative GPA falls below 2.00. A termination of benefits letter will be sent to students who fail to bring their cumulative GPA above 2.00 for a second consecutive term. In addition, 70 percent of all classes attempted must be completed in order to qualify for graduation. Therefore, any student whose total course work consists of more than 30 percent "Y," "F" and "NP" grades also will receive a probation or termination letter in the same manner that is prescribed for a deficient GPA. *Failure to complete any of the courses attempted in one term may result in immediate termination of benefits. (e.g. Attempted 12 credits, completed none).*

Reinstatement of VA Benefits:

To re-establish VA benefits following unsatisfactory progress, the student may:

1. Continue without benefits until the unsatisfactory progress has been corrected. Benefits will then be reinstated to include the unpaid period of attendance.
2. Or, submit the following to the LBCC Veterans' Office:
 - a. A letter of counseling from an LBCC guidance counselor addressing the reasons for unsatisfactory progress and an assessment of the student's potential to correct academic problems.
 - b. A statement explaining reasons for the unsatisfactory progress and how any reoccurrence will be avoided.

Changes in course scheduling:

Students are responsible for notifying the LBCC Veterans' Office of any change in courses attempted or credit load (adds, drops, cancelled or withdrawal from classes). Failure to do so immediately may result in unnecessary overpayments that must be repaid or deducted from future benefits. ♦



SERVICES FOR STUDENTS

Academic Advising

967-6102
T 103

The academic advising program at LBCC helps students plan and carry out programs of study. At orientation, each student is assigned an academic advisor from the instructional staff or the program in which he or she is enrolled. Students who have not selected a major or who will spend a term or more in developmental skills classes are assigned an advisor from the counseling staff.

Part-time students also are encouraged to meet with an advisor periodically for academic advising.

The Counseling Center may be contacted for more information.

Adult General Education Programs

967-8836
LRC 200

A variety of classes and programs are available to adults who do not have a high school diploma or who want to improve their basic skills in reading, communicating, computing and critical thinking. Instruction is available mornings, afternoons and evenings at the campus in Albany and days and evenings at the Benton, Lebanon and Sweet Home Extended Learning centers. The college also will attempt to locate volunteer tutors or self-study materials to help adults who, due to illness, disability, incarceration or other reasons beyond their control, are unable to attend regularly scheduled classes.

To be eligible for these classes, a person must be at least 18 years of age and no longer enrolled in school. Those who are under age 18 must present from their local school district a signed release from compulsory attendance provided for by ORS 339.30.

There is no tuition charge for ABE classes. New students must attend an ABE orientation before enrolling. Students may enroll during the first nine weeks of each term.

Adult Basic Education (ABE)

The ABE program provides classes to teach reading, communicating, computing and critical thinking. Instruction is varied to meet individual learning styles and to provide a positive learning environment. No tuition is charged.

Adult High School Diploma (AHSD)

See "Diplomas" in the "Programs of Study" section of this catalog.

English as a Second Language (ESL)

ESL is for adults whose first or native language is not English. Instruction is available in reading, writing and speaking the English language. Emphasis is on oral communication and survival skills while developing basic reading, writing and listening skills. Instruction is provided at beginning and intermediate levels. No tuition is charged.

General Education Development (GED)

See "Diplomas" in the "Programs of Study" section of this catalog.

Assessment Center

967-6553
T 227

A variety of tests are offered for currently enrolled students and members of the community, including:

1. the General Education Development (GED) test for the certificate of high school equivalency;
2. the Computerized Placement Test (CPT) to properly place students in classes;
3. the College Level Exam Program (CLEP) test for college credit by examination;
4. course challenges that enable students to earn college credit by examination without completing regular credit course work;
5. individualized testing for on-campus courses or programs; and
6. testing for individuals going through the immigration process (IRCA).

Bookstore

967-6503
CC 111.

The Bookstore sells texts and supplies for LBCC courses. Textbooks for classes offered at the off-campus Extended Learning centers are available at the centers only, not at the LBCC Bookstore on the main campus. Art and school supplies, general interest books, soft goods and gift items also are available.

The Bookstore is open from 8 am to 4:30 pm Monday through Thursday and 8 am to 4 pm on Friday. Evening hours are scheduled the first two weeks of each term for the convenience of evening students. Also, some classroom supplies are available at the snack bar in Takana Hall. Used texts may be sold back during designated hours.

Career Information Center

967-6102
T 103

The Career Information Center provides information to district residents who want to make a career decision. Interest testing and career classes are available on a fee basis, while the career decision-making program "CIS" is available free to the public.

Child Care

967-8833
Family Resource Center

On-campus child care for LBCC families is provided through the Family Resources Department. Children must be at least two and one-half years of age and not yet eligible for kindergarten. Families enroll for a term at a time. When families enroll, they commit to using the center for at least one term.

The Child Care Resource and Referral service offers help and information to parents seeking child care. For more information on this service, call 967-6501.

Computer Lab

Day & Night Number: 967-8812
Forum 204

The LBCC Forum Computer Lab is open to currently registered LBCC students. The lab is open a variety of hours seven days a week to meet student needs. Friendly service is provided by trained staff whose primary concern is to help students master the skills needed to complete course assignments easily and quickly on either IBM compatibles or Macintosh SE's. Software programs available include everything from simple word processing and spreadsheets to graphics, page layout and programming languages. Software reference books and self-paced tutorials are available to guide students in learning new programs. To serve community members not enrolled in classes at LBCC, non-credit computer lab hours can be purchased through open registration. A current ID card is required for entrance to the lab.

Computer labs also are available at the Benton, Lebanon and Sweet Home Extended Learning centers.

Counseling Center

967-6102
T 103

Students wanting career, educational or personal counseling may contact the Counseling Center. Regular contact with a counselor can help the student clarify goals and progress smoothly through the college system. A counselor may help with personal demands of college life or with selecting appropriate course work.

Classes offered by the counseling staff are designed to provide students with a special kind of assistance. Career planning, stress management, assertiveness training and other courses are intended to help the student clarify goals and develop life management skills.

Counselors also are available part time at the Benton, Lebanon and Sweet Home Extended Learning centers.

SERVICES FOR STUDENTS

Disabled Student Services

928-2361, ext. 410
TTY 967-6114
LRC 203A

Disabled students will find buildings and classrooms at LBCC accessible. Transportation to and from campus is available through the local shuttle system from Albany and Corvallis. Buses running from the Albany area have facilities to transport wheelchairs.

The coordinator of Disabled Student Services is an advocate for with students with disabilities and assists them with special needs or concerns. Career, academic and personal counseling are available at the Career Center.

The college provides specially marked parking areas. Parking permits for people with disabilities may be obtained at the local Oregon Department of Motor Vehicles Office. The Student Programs Office assigns storage lockers for the use of students with disabilities.

Students who are unable to stand in the registration line due to physical limitations may obtain a "Disabled Student Line Reservation Slip" from the Registrar's secretary.

Students who are deaf or hearing impaired and community members can receive information about LBCC classes or make appointments with LBCC staff members by calling the college's TTY number, 967-6114. The TTY is located in the Student Development Office on the second floor of the Learning Resource Center.

Disabled Student Service staff members provide vocational and academic support services to LBCC students with disabilities. Services are specific to individual student needs and may include one or more of the following:

- Scheduling of classes
- Interpreting
- Note taking
- Taped texts
- Oral testing
- Vocational advising
- Tutoring
- Learning strategies classes
- Living skills classes
- Professional technical study skills classes
- Other accommodations specific to a student's needs and disability

Students must meet special enrollment requirements to receive program services. The services are free.

First Aid Station

967-6552
CC 123

The Security and Safety Services Office maintains a first aid station equipped to care for basic, minor injuries. For life-threatening emergencies call 911 and then notify the Security and Safety Services Office at 967-6552.

Food Service

967-6101
CC 214B

Cafeteria: The cafeteria is located on the second floor of the College Center. Service is available from 7:30 am to 2 pm Monday through Friday.

Santiam Room: The Santiam Restaurant is student operated and is located in CC 201. Daily menus are planned, prepared and served by Culinary Arts students Monday through Thursday during the school year. Lunch is served from 11 a.m. to 12:30 p.m. Coffee and pastries are served from 9:30 a.m. to 11 a.m.

Snackbar: A snackbar is located on the first floor of Takena Hall, serving a selection of soups, sandwiches, fruit and other items daily. Service is available from 8 am to 9 pm Monday through Thursday and 8 am to 3:30 pm on Friday.

In addition, the Food Service operation caters within the LBCC facility for special activities sponsored by the college or community. The Food Services Office (967-6101) may be contacted for more information.

Learning Center

967-8866
LRC 212

The Learning Center is an open study area where equipment, resources and assistance are available for students. Students may use the Learning Center during any of the approximately 55 hours a week the center is open. The atmosphere is relaxed and friendly.

Learning Center areas and functions include: *Mathematics Assistance:* Students enrolled in any LBCC mathematics class can study and receive assistance in the Learning Center. At least one mathematics instructional assistant staffs the Learning Center during open hours. Students can get help with homework problems, have questions answered, have concepts clarified or study for a test. A classroom dedicated to MTH 20: Basic Mathematics is located adjacent to the Learning Center. The room is equipped with computers and other instructional equipment to accommodate a variety of learning styles.

Writing Assistance: Students enrolled in writing classes, particularly WR 115: Introduction to Writing and WR 121: English Composition, as well as students in other classes that have a writing assignment, can visit the Writing Desk where an instructional assistant critiques their writing. The Writing Desk assistants help students interpret their writing assignments, help them write what they want to say and generally guide students to a better completed paper. No appointment is needed.

Testing: The Learning Center provides testing for some math classes, developmental classes and for other subject area classes at the request of the instructor. This service is particularly helpful when students need to make up an exam or take a retest.

Computer Assisted Instruction: The 25 computers in the Learning Center are networked and run software for writing, reading and study skills, plus additional software of general interest, such as a Learning Styles Inventory. Twelve of the computers are in a classroom being used to teach several writing classes. These machines are available for student use whenever classes are not in session.

Developmental English Assistance: Students who are enrolled in Developmental English or Developmental English: Individualized can use the services of the center to complete module assignments and to take module tests. Instructional assistants are on duty to explain concepts and direct students to additional resources. In addition, students in these two courses may use the numerous computer software programs that are accessible on the center's computers.

Reading Assistance: Students enrolled in reading improvement classes will find a wide variety of supplemental materials in the Learning Center. Computer software programs include materials covering roots, prefixes, comprehension, vocabulary and textbook reading. Dictionaries and other reference books are available for use within the center.

Mini-courses: Students may discover that after a quarter begins that they need help with a specific learning skill such as reading a textbook, taking lecture notes or writing a research paper. These students may enroll in a mini-lab or mini-courses, self-paced modules that vary in credit from .25 to 1.00. The time required to complete a mini varies depending upon the student but the benefit is that students can immediately apply what they learn. A list of mini-labs and mini-courses is available in the Learning Center. Of course, students also may register for a mini-course at the beginning of the term.

Study Skills Enhancement: The center includes an expanding library of materials that support the two study-skills classes. Materials include videotapes, audiotapes, computer software, video-disks and many written reference works.

Tutoring: When students decide they need additional one-to-one assistance in a particular course, they may sign up for a tutor appointment. Three hours of free tutoring per week is available for most LBCC classes. Tutors are generally other students who have taken classes here and were successful. They are approved by faculty members and attend a 10-hour tutor training class. Students can sign up at the center between 8 a.m. and 5 p.m. weekdays. Most tutoring appointments occur during the day; however, some tutors have evening appointment times.

Library

967-8813 - Circulation
928-2361, ext. 395 - Reference
928-2361, ext. 331 - Department chairman
928-2361, ext. 394 - Media Services
967-8813 - Evening Number
Learning Resource Center

The LBCC Library contains about 50,000 volumes and subscribes to approximately 250 periodicals and newspapers. It provides a basic reference collection; general indexes, including two CD ROM periodical indexes; and periodicals in the liberal arts, technical and vocational fields, which are accessible via an on-line catalog.

In addition, the library has access to a variety of on-line data bases and maintains a sizable collection of non-print instructional and informational materials, such as audio tapes, video tapes, filmstrips and slide sets, plus the equipment for using these materials. Typewriters for student use also are located in the library. Students may receive instruction in how to use the library and the media equipment from library staff members on a drop-in basis or by regularly scheduled weekly library tours.

Library materials not available in the LBCC Library often may be obtained through interlibrary loans via OCLC, a national library network. Also, LBCC students may borrow books from the Oregon State University Library.

Lost & Found

967-6552
CC-123.

The lost & found department is maintained by the Security and Safety Services Office. Lost items may be reported and found items turned into the department 8 a.m. - 5 p.m. Monday through Friday.

Printing Services

967-8804
LRC 105.

Printing Services offers a wide range of print-related services and supplies to LBCC staff and students. The Print Shop can provide convenience printing (resumes, business cards, brochures, etc.), custom typesetting and image scanning. Our system can utilize your Macintosh or IBM-compatible disk. Available for sale are a variety of cut paper, computer paper, labels, and printer and typewriter ribbons. Hours are Monday through Friday 8 a.m. to 4:30 p.m.

Room Reservations/General Information

Security and Safety Services Office
967-8885
CC 123

Reservations for the college's meeting rooms are made through the Security and Safety Services Office, 9 a.m. - noon and 1 - 3 p.m., Monday through Friday. This office also provides information about meetings and events held on the Albany campus.

Security and Safety Services

967-6552
CC 123

The Security and Safety Services Office is open 8 a.m. - 5 p.m. Monday through Friday. Available services include FAX machine, first aid station, lost and found, and parking management. Security is available 24 hours a day by calling 926-6855. For life-threatening emergencies, call 911 and then notify the Security and Safety Services Office.

Student Employment Center/Cooperative Work Experience Services

967-6102
T 101

The Student Employment Center assists current students, graduates and alumni of the college in obtaining part-time, full-time, temporary and permanent employment. Job sources include local employment listings, current Oregon Civil Service openings, federal job information and a variety of listings solicited from other states. Labor market information available includes projected demand (employment and openings), salary data and employment outlook analysis of a wide variety of occupations in the state of Oregon and Linn and Benton counties. The center also has national labor trend information available.

The center maintains a library of local employer information to assist students in researching company data. An annual employer fair is held to help acquaint all students with the employment needs of local industries. Students also can receive help in resume and cover letter preparation, application form preparation, interviewing techniques and job search strategies.

Students have the opportunity to gain college credit through work experience. This service is coordinated by Cooperative Work Experience faculty. For more information on CWE, see the description in the "Programs of Study" section of this catalog.

Student Programs

967-8831
CC 213

The college encourages activities that will complement the academic program by providing students with opportunities for leadership, cooperative planning and development of social, cultural and athletic/physical fitness interests. Student activities, organizations and intramural sports are open to all students.

Clubs and organizations offer co-curricular and extra-curricular affiliation in such areas as welding, engineering, horticulture, nursing, drama, animal technology, culinary arts, business management, soccer and religious organizations. For more information about present clubs and organizations, or establishing new clubs, the Student Programs Office may be contacted.

The Student Programs Office maintains the Fireside Lounge and the recreational facility on the second floor of the College Center Building.

Associated Students of LBCC (ASLBCC):

The Student Council provides opportunities for students to serve on college committees and earn credit for participating in leadership activities that enhance student life. The college also offers student leadership classes, which provide an opportunity for students to learn about specific leadership topics. The ASLBCC Council of Representatives is a student organization that serves as a representative and advisory group to faculty, administration and the board of education.

The council is composed of two student representatives from each academic division, one at-large representative and two non-divisional executive positions. Any student enrolled in at least one credit class at LBCC is eligible to hold a representative position; one Student Services and Extended Learning position is open to students enrolled in non-credit courses in the division. Interested students may contact the Student Programs Office, CC 213, 967-8831.

Drama:

LBCC's Performing Arts Department provides several opportunities each year for students and community members to participate in theatre productions. Those interested in theatre may contact the Performing Arts Department or the Liberal Arts and Human Performance Division, AHSS 101, for more information.

Intercollegiate Athletics:

Linn-Benton Community College has developed a comprehensive program of intercollegiate athletics in affiliation with the Northwest Athletic Association of Community Colleges. Programs projected for the coming school year include women's volleyball, men's and women's basketball, men's and women's track and men's baseball. Athletic programs are funded through student fees.

For more information, contact Dave Bakley, Athletic Director, 967-6109, AC 102.

International Education

The Student Programs Office supports LBCC staff and students with information about work and study abroad, encourages and supports a global perspective in the curriculum, promotes intercultural communication and understanding through programs and events, and serves as a clearing house for information about international programs.

LBCC is a member of the National Association for Foreign Student Affairs (NAFSA) and the Northwest International Education Association (NIEA).

Music:

The college offers several opportunities for student participation in vocal and instrumental performing arts, including Chamber Choir, Concert Choir, Community Chorale and the Community Big Band. Interested students may contact the Performing Arts Department or the Liberal Arts and Human Performance Division, AHSS 101, for more information.

Publications:

The students of LBCC are responsible for publishing the college newspaper, *The Commuter*, which has won many awards for excellence. The paper is published weekly during most of the school year. Students interested in participating may contact the Graphic Communications and Journalism Department or the Liberal Arts and Human Performance Division, AHSS 101.

Each spring, students also publish *The Eloquent Umbrella*, a literary journal for poetry, fiction, essays and graphic arts that features works from students, staff and the community. Submissions are due by the end of the second week of winter term. *The Eloquent Umbrella* is available for sale in the LBCC Bookstore and is sponsored by the ASLBCC and the English Department. If you would like more information, please telephone the English Department at 928-2361, ext. 208, or contact the Liberal Arts and Human Performance (LAHP) Division Office, AHSS 101.

Intramural & Recreational Sports:

An intramural and recreational sports program is offered to all students jointly through the Physical Education Department and Student Programs. Interested students may contact the Student Programs Office, CC 213.

Supplemental Instruction (SI)

967-8866
LRC 212

Supplemental Instruction (SI) is available for many high-risk courses in subject areas such as math, physics and chemistry. Data indicate that regular attendance at Supplemental Instruction sessions help students earn a better grade than they would on their own. The SI leaders are students who have successfully taken the course. As leaders, they attend the class, take notes and meet with students weekly to help them with their studies. Check with your instructor or in the Learning Center to find out which courses currently have SI.

Telecourses

928-2361, ext. 332
LRC 105

Telecourses are genuine college courses. They enable students to earn college credit at home and are an alternative to attending classes on the LBCC campus. While much of the course content is televised, the majority of information is contained in text and workbook materials specially designed for the telecourses. Classes are televised over Oregon Public Broadcasting (channel 7) and on TCI Cable in Albany and Corvallis (channel 31). Programs are usually viewed once or twice during the week and total one hour in length. For students who own a VHS video recorder (VCR), the complete telecourse is available at no charge on two VHS tapes from the LBCC Library. Enrolled students may check out the tapes for the entire term.

Registration procedures and tuition are the same as for regular LBCC courses. An additional \$15 lab fee is charged to cover the per-student lease costs charged by the telecourse producer. Attending the first class meeting, indicated in the class schedule, is important because it serves as the student orientation session. On-campus attendance is required three to four times during the term for review and testing.

Women's Center

928-2361, ext. 377
IA 225

The female student population at Linn-Benton Community College is a diverse group. Their goals vary. Some are earning G.E.D.'s, some are getting professional-technical training, while others are planning to transfer to a four-year college or university.

One thing all of these women have in common is an open invitation to visit and use the services of the LBCC Women's Center. Men also are welcome. The center offers:

Scholarship information:

The center provides listings of current private scholarships available to women of all ages in many career fields.

Peer Support:

This service is available through informal activities and daily lunchtime conversations.

Information & Referral Services:

A comprehensive campus and community referral service to assist the student in finding answers, or at least finding the right place to ask questions, is available.

Library:

A continuously expanding collection of books, periodicals and resource files are checked out to students and non-students free of charge.

Programs:

The center offers special seminars, such as brown bag discussions, on a variety of issues throughout the academic year. A lounge and coffee bar is available for study and informal gatherings. The center provides a comfortable retreat from busy schedules. ♦

PROGRAMS OF STUDY

All credit offerings of the college, either lower-division transfer or professional technical non-transfer, are taught as college-level classes.

Courses with letter prefixes and numbers of 100 or higher (for example, WR 121, BI 103, MTH 111) have been approved for transfer to four-year colleges and universities. Courses numbered 100-199 are considered freshman-level courses and those numbered 200-299 are considered sophomore-level courses.

Transferable courses do not have a decimal point in the numbers.

Letter prefix courses that have numbers below 100 or numbers that include decimal points (for example, MTH 50, BA 2.530) generally will not transfer to a four-year college or university. In the case of professional technical courses, however, there are some exceptions to this rule. Students should see an advisor concerning the transferability of professional-technical courses.

Exploratory Studies

The Exploratory Studies program is designed for students uncertain of their major or career goals. The program is two quarters in length and provides course work to promote general skill development, career decision-making and exploration in several career areas. For more information, please contact the Counseling Center, Takena Hall 101, 967-6102.

Degrees, Certificates & Diplomas

LBCC offers Associate of Applied Science, Associate of Arts (Oregon transfer degree), Associate of General Studies and Associate of Science (with a major emphasis in a subject area) degrees, professional technical certificates and diplomas for high school completion.

Associate of Applied Science Degrees

This degree is awarded to those students who complete the requirements of a specified, two-year professional technical (non-transfer) program. Associate of Applied Science degrees are offered in:

Accounting Technology
Administrative Assistant
Administrative Medical Assistant
Agriculture
Animal Technology
Animal Technology/Horse Management
Apprenticeship Program
Automotive Technology
Banking and Finance
Business
Business Computer Systems
Crafts & Trades
Criminal Justice
Corrections
Law Enforcement
Culinary Arts and Hospitality Services
Chef Training
Conference & Resort Management
Restaurant & Catering Management
Drafting Technology
Electronics Engineering Technology
Graphic Communications
Heavy Equipment Mechanics/Diesel
Horticulture
Legal Secretary
Manufacturing Technology
Metallurgy Technology
Nursing
Refrigeration, Heating and Air Conditioning
Supervisory Management
Water/Wastewater Technology

Associate of Arts Degree (Oregon Transfer)

Students transferring from Linn-Benton with an Associate of Arts degree to an undergraduate program at an institution of the Oregon State System of Higher Education will have earned credit or demonstrated proficiency in the requirements listed for an Associate of Arts degree in the "General Education Requirements" section of this catalog. State System Colleges and Universities will accept this degree as meeting institutional lower division general education requirements, but not necessarily school, department or major requirements with regard to courses or grade point average (GPA).

The Associate of Arts degree is offered with emphasis in the following areas:

General Transfer
Business Administration
Economics

Associate of General Studies

This degree is awarded to those students who complete a two-year curriculum, which may include transfer and/or non-transfer credit course work. General Studies degrees may be non-specific or include a technology option.

Associate of Science Degree (with a major emphasis in a specific subject area)

This degree is awarded to those students who complete the requirements of a specified, two-year lower division (transfer) program.

Associate of Science degrees are offered in:

Agricultural Education
Agriculture Business Management
Animal Science
Art
Biological Sciences
Business Administration
Computer Science
Criminal Justice
Education (Pre-)
Elementary
Secondary
Engineering (Pre-)
Home Economics
Humanities
Creative Writing
Fine Art
Literature
Music
Philosophy/Religion
Spanish
Theatre
Journalism/Mass Communications
Liberal Studies
Mathematics
Physical Education & Health
Social Sciences
American Studies
Behavioral Studies
International/Intercultural Studies
Theatre/Speech

After Four Program

Four degree opportunities currently are offered through LBCC's After Four Program. The general transfer (undeclared major) Associate of Arts (Oregon transfer) degree provides the "two-year" lower division credits that enable students to transfer with junior standing to a four-year college or university. The Associate of Science with a major emphasis in Business Administration is for the student who plans to transfer to a four-year institution to complete a bachelor's degree in business administration. The Associate of General Studies is awarded to those students who complete a non-specified degree curriculum that includes transfer and/or non-transfer credit course work.

PROGRAMS OF STUDY

An Associate of Applied Science degree in Supervisory Management is for individuals who are currently supervising or preparing to supervise personnel.

Certificates in Accounting Clerk and Basic Supervisory Management also can be earned through evening courses.

Certificates

The college awards certificates to students who complete specific requirements within a professional technical major, on recommendation of instructional staff within that field.

One-year certificates are offered in:

Accounting Clerk
Advanced Supervisory Management
Agriculture
Collision Repair
Dental Assistant
Heating
Horticulture
Medical Office Specialist
Medical Transcriptionist
Non-destructive Testing
Water/Wastewater Plant Operations
Welding

Two-year certificates are offered in:

Automotive Technology
Heavy Equipment Mechanics/Diesel
Manufacturing Technology
Refrigeration/Heating/Air Conditioning

General Certificates are offered in:

Accelerated Secretarial Advancement
Program (ASAP) I and II
Basic Supervisory Management
Farrier Science
Nursing Assistant

Diplomas

In cooperation with local high schools, LBCC has two programs for students who want to obtain a high school diploma or high school equivalent:

1. *Oregon Competency Based Adult High School Diploma*: LBCC is authorized by the state of Oregon to issue a high school diploma to adults (age 18 or older) who meet high school graduation requirements established by the college. High school credits may be obtained in LBCC college-level and non-credit classes or by attending high school classes offered through the Developmental Education Office and Extended Learning Centers. In some cases, adults may obtain high school credits through assessment of life experiences.

Information about the Adult High School Diploma program is available through the Developmental Education Office, the Counseling Center or the Extended Learning Centers. Admission applications and information are available from the Admissions Office.

2. *General Education Development (GED)*: GED studies are designed for adults who want to prepare for the GED high school equivalency examination or for those who want to improve their general knowledge and skills in the subject areas offered. Areas of study include writing, math, reading, comprehension of literature, social studies and science.

No tuition is charged for GED studies, but students may purchase some texts and study materials. New students must attend a GED orientation before enrolling. Students may enroll during the first nine weeks of each term. Individualized study and group work are provided.

Regional Programs

The LBCC Board of Education has designated the following programs as Regional Programs, thereby reducing tuition for out-of-state students to in-state tuition for the first term of their enrollment. For subsequent terms, these students must establish and meet LBCC's residency requirements to qualify for the in-state tuition rate. The residency requirements are outlined in the Admissions section of this catalog.

Regional programs include:

Agriculture
Animal Science
Farrier School
Horticulture
Metallurgy
Refrigeration, Heating and Air
Conditioning
Water/Wastewater Technology

Special Training Programs

Cooperative Work Experience

Richard Horton
CWE Coordinator
967-6102
T 101

Cooperative Work Experience is an instructional program providing opportunity for students enrolled in LBCC programs to earn up to 14 hours of college credit for what they learn on the job.

CWE 280/WE1.280 Cooperative Work Experience is a course that allows the student to work at a job that closely parallels his or her field of study while enrolled in school.

Through work experience, the student may test interest in and suitability for an occupation while learning, being exposed to work methods not taught in the classroom and having access to equipment not normally available in the college laboratory. The student is prepared for the ever-changing needs in industry, government and service agencies, making the transition from school to work under the guidance of a coordinator.

CWE 202/WE1.201 CWE Seminar is required for all students enrolled in Cooperative Work Experience and provides the opportunity to share work-related experiences with the CWE coordinator and fellow CWE students.

Students interested in building Cooperative Work Experience into a program at LBCC should discuss it with their major area instructors and the CWE coordinator to plan the best term for registration and to allow ample time for locating a training station.

Reserve Officer Training Corps

Through cooperation with Oregon State University, Linn-Benton Community College provides an opportunity for both men and women to participate in a Reserve Officers Training Corps program while attending LBCC.

The ROTC selects and prepares young men and women, through a program of instruction coordinated with the student's normal academic curriculum, to serve as officers in the regular and reserve components of the Army, Navy, Air Force and Marine Corps. Each of the units strives to develop in students a capacity for leadership; to develop them morally, mentally and physically; and to provide them with the basic working knowledge required of a young officer.

Aerospace Studies (Air Force ROTC):

Air Force ROTC allows students to compete for commissions as officers in the United States Air Force. Opportunities exist for well-qualified students from all fields. Scholarship opportunities are especially bright for students with scientific-, engineering- and mathematics-related majors. The Air Force is particularly interested in students who are interested in aviation careers as pilots or navigators. Two- and four-year programs are available.

Army ROTC:

This program offers each eligible man and woman the opportunity to compete for a commission as an officer in the United States Army while earning a college degree. Both basic and advanced programs with multiple entry points can be tailored to a student's needs. Those interested in aviation careers have the opportunity to become officer pilots in fixed or rotary wing aircraft. Merit scholarship opportunities exist for students in any approved academic discipline, particularly in engineering, science, business and social science.

Students interested in enrolling in one of these programs while attending Linn-Benton Community College should contact Rich Horton in the Career Center, T 101 (967-6102). ♦

GRADUATION REQUIREMENTS

General Graduation Requirements

Students must be fully admitted (matriculated) in order to receive degrees and certificates from Linn-Benton Community College.

Requirements for degrees, certificates and diplomas are subject to approval of the board of education, as well as the Oregon State Department of Education, Office of Community College Services. Students qualifying for an Associate of Applied Science, Associate of Science or an Associate of Arts (Oregon transfer) degree will not be allowed to apply for the Associate of General Studies degree.

Students who complete a certificate or degree program that includes courses for a certificate of fewer requirements will receive only the highest certificate or degree. Students who want to complete more than one major or degree must complete fifteen (15) additional credits for each program above the original requirements. Students completing requirements must apply for graduation at the Admissions Office in Takena Hall at least one term prior to expected graduation.

Courses taken to satisfy the Humanities/Art, Social Science and Math/Science General Education Requirements must be a minimum of three credit hours. Symbols in the course description section of this catalog indicate which classes will apply toward the General Education Requirements for the Associate of General Studies degree.

Students who enroll in variable credit courses must complete all course credits if the course is to be used to meet General Education Requirements.

Students who have completed the 24-credit residency requirement and transfer prior to completing the college degree requirements may transfer a maximum of (11) quarter credits of remaining requirements back to Linn-Benton Community College and graduate within one calendar year from the last term of attendance at LBCC.

Degree Titles

Beginning with the 1989-90 school year, the college's existing Associate of Science degree title was changed to Associate of Applied Science with a designated major. Students who established a major in an Associate of Science program prior to fall term 1989 were allowed to graduate with that degree title through spring term 1990. Students not completing their programs by that date can petition for the Associate of Science degree title through spring term 1993. Students changing their major, returning from an absence of over five years and new students entering a professional technical program fall term 1989 will receive an Associate of Applied Science degree upon completing the requirements.

Beginning with the 1990-91 school year, the college began offering an Associate of Arts degree without a designated major. This degree transfers in total to any Oregon State System of Higher Education Institution as meeting their lower division general education requirements. A notation on the transcript will indicate that this Associate of Arts degree meets the "block transfer" requirements.

Courses will continue, however, to transfer on a course-by-course basis. Students who established a major prior to fall term 1990 are allowed to graduate under prior requirements through spring 1992, but the degree will not say "Oregon Transfer."

Students who did not complete their programs by spring term 1992 may petition for the old Associate of Arts degree requirements through spring term 1994. Students changing their major, returning from an absence of over five years and new students beginning an Associate of Arts degree program by fall term 1990 must complete the new Associate of Arts (Oregon Transfer) degree requirements.

Beginning with the 1990-91 school year, the college began offering an Associate of Science degree program without a designated major. This is a lower division transfer program that transfers, on a course-by-course basis, to any four-year college or university but is designed primarily to assist students who intend to transfer to Oregon State University.

Limitation Policy

Beginning with the 1989-90 school year, students may choose, within a five-year limit, to graduate under the requirements that existed when they started their program. Students always may elect to graduate under the graduation requirements of the current catalog.

GRADUATION REQUIREMENTS

Requirements for the Associate of Applied Science Degree

To receive an Associate of Applied Science degree from LBCC, the student must:

1. Complete the general education requirements and the required major curriculum as outlined.
2. Complete a minimum of 90 credits (some programs may have requirements that exceed this amount).
3. Complete a minimum of 24 credits at Linn-Benton Community College.
4. Maintain a minimum accumulative grade point average of 2.00 or better.
5. Where options exist in the general education area, see a department advisor for assistance.

General Education Requirements 19

Courses numbered with 0. (zero decimal point) will not apply toward this degree

Composition (3)

WR 121 English Composition 3

(Students must have passed WR 115 with a grade of "C" or better or attained appropriate placement test score on the Placement Test or the Computerized Placement Test to enroll in WR 121.)

Speech (select one) (3)

SP 1.103 Occupational Speech 3
 SP 111 Interpersonal Communication 3
 SP 112 Fundamentals of Speech 3
 SP 113 Introduction to Persuasion 3

Math (4)

MTH 61 Survey of Math Fundamentals 3
and one of the following:

MTH 62 Occupational Trigonometry 1
 MTH 63 Industrial Shop Math 1
 MTH 64 Business Applications: Math Fundamentals 1
 OA 2.557 Advanced Business Math Applications 1

or higher level Math courses

(Students must have attained an appropriate placement test score on the Placement Test or the Computerized Placement Test to enroll in the above Math courses.)

Health and PE (select three credits) (3)

HE 112 Emergency First Aid 1
 HE 125 Occupational Safety 3
 HE 250 Health 3
 HE 252 First Aid 3
 HE 261 CPR 1
 PE 185 Activity Courses 1
 PE 231 Lifetime Wellness 3

(Only one activity course may be taken twice to meet general education requirements, and no more than two activity courses per term will count toward general education requirements.)

Perspectives* 6

The following courses have been approved by the Curricular Issues Committee to meet the Science, Technology and Society general education requirement for the Associate of Applied Science degree.

Science, Technology & Society (3)

GS 151 Energy in Society
 GS 152 Science, Technology & Society
 HST 150 Science & Culture in the Western Tradition
 HSTS 151 History of Science
 RH 3.527 Alternative Energy Sources
 ST 1.106 Science & Culture/Western Tradition
 ST 1.107 Technology, Science & Our Society

Culture Diversity & Global Awareness (3)

The following courses have been approved by the Curricular Issues Committee to meet the Cultural Diversity and Global Awareness general education requirement for the Associate of Applied Science degree.

ANTH 102 Intro to Archaeological Prehistory
 ANTH 103 Intro to Cultural Anthropology
 ANTH 107 Anthropology Today
 ANTH 232 Native North Americans

ART 102 Understanding Art
 ART 204, 205, 206 Intro to Art History

BA 203 International Business
 BA 285 Business Relations in a Global Economy

EC 115 Outline of Economics
 EC 203 Principles of Economics
 EC 214 Macroeconomics
 EC 220 Contemporary U.S. Economic Issues

ENG 104 Intro to Literature: Fiction
 ENG 105 Intro to Literature: Drama
 ENG 107, 108, 109 Literature of the Western World
 ENG 204, 205, 206 Survey of English Literature
 ENG 207 Literature of the Non-Western World: Asia
 ENG 208 Literature of the Non-Western World: Africa
 ENG 209 Literature of the Non-Western World: Latin America

ENG 211 Literature of Athletics
 ENG 250 Intro to Mythology
 ENG 275 Bible as Literature

GEOG 190 Environmental Studies
 GEOG 202 World Regional Geography: Latin America/Caribbean
 GEOG 203 World Regional Geography: Asia
 GEOG 204 World Regional Geography: Africa/Middle East

HST 101, 102, 103 History of Western Civilization
 HST 157 History of the Middle East & Africa
 HST 158 History of Latin America
 HST 159 History of Asia
 HST 191 History of China: Society & Culture to 1911
 HST 192 History of China: 20th Century
 HST 203 History of the United States

HUM 100 Introduction to Humanities

MUS 105 Intro to Rock Music
 MUS 161 Music Appreciation
 MUS 205 Intro to Jazz

PHL 201 Intro to Philosophy
 PHL 202 Elementary Ethics

PS 104 Problems in American Politics
 PS 205 International Relations
 PS 206 Comparative European Governments
 PS 207 Intro to Political Science
 PS 220 U.S. Foreign Policy

R 102 Religions of Western World
 R 103 Religions of Eastern World
 R 211 The Old Testament: Historical Background
 R 212 The New Testament: Historical Background

SPN 201, 202, 203 Second-Year Spanish I, II, III
 SPN 232 Selected Readings

Computer Competency for degree:

The Computer Competency may be met by taking an approved course that includes computer use by the student or by passing a competency test.

* Additional classes may have been added since this catalog was published. Please check counseling or division offices for current list.

Requirements for the Associate of Arts (Oregon Transfer) Degree

The Associate of Arts is an Oregon transfer degree. Students transferring from Linn-Benton Community College with an Associate of Arts degree will have met all lower-division institutional general education requirements at any State System of Higher Education college or university.

The Associate of Arts is not organized in relationship to subject areas of major emphasis; however, courses students elect to take beyond the general education requirements may have broad application to major requirements at the four-year institution to which the credits are being transferred. Students pursuing the Associate of Arts degree must complete the prescribed general education requirements plus sufficient electives to achieve a minimum of 90 total credits.

General Education

(The required math, writing and speech courses must be passed with a grade of "C" or higher.)

Writing (9)

WR 121 English Composition
Select two courses:
 WR 122 English Composition
 WR 123 English Composition
 WR 123C English Composition: Computer
 WR 214 Business English
 WR 227 Technical Report Writing

Speech (3)

Course may apply to the Arts & Letters requirement under part B below.

Select one course:
 SP 111 Interpersonal Communication
 SP 112 Fundamentals of Speech
 SP 113 Intro to Persuasion

College Level Math (4)

Course may apply to the Science/Mathematics requirement under part B below.

MTH 105 Intro to Contemporary Mathematics or a higher numbered Math course.

Health/Wellness/Physical Education (3)

HE 250 Personal Health
 PE 180 Activity Classes
 PE 185 Activity Classes
 PE 190 Activity Classes
 PE 231 Lifetime Wellness

Computer Competency for degree:

The Computer Competency may be met by taking an approved course that includes computer use by the student or by passing a competency test.

(Continued on next page)

GRADUATION REQUIREMENTS

Distribution Requirements*

Part A: A three-course sequence in each of the three areas of Arts and Letters, Social Sciences and Science/Mathematics.

Part B: Three courses in two of the three areas of Arts and Letters, Social Sciences and Science/Mathematics and two courses in the third area.

Arts & Letters

Part A. Select a three-course sequence from below:

ART 204, 205, 206 Intro to Art History

ENG 104 Intro to Literature: Fiction

ENG 105 Intro to Literature: Drama

ENG 106 Intro to Literature: Poetry

ENG 107 Literature of the Western World: The Classical Ages

ENG 108 Literature of the Western World: The Middle Ages to the Age of Reason

ENG 109 Literature of the Western World: 18th Century to the Present

ENG 201, 202, 203 Shakespeare

ENG 204, 205, 206 Survey of English Literature

ENG 207 Literature of the Non-Western World: Asia

ENG 208 Literature of the Non-Western World: Africa

ENG 209 Literature of the Non-Western World: Latin America

ENG 253, 254, 255 Survey of American Literature

WR 240 Personal Journal Writing

WR 241, 242 Intro to Imaginative Writing

Part B. Select two or three courses (with different prefixes than the sequence selected in Part A) from Part A or from below:

ART 102 Understanding Art

ENG 112 Speculative Literature

ENG 121 Mystery Fiction

ENG 211 Literature of Athletics

ENG 222 Images of Women in Literature

ENG 260 Intro to Women Writers

ENG 275 Bible as Literature

HUM 100 Intro to Humanities

MUS 101 Music Fundamentals

MUS 105 Intro to Rock Music

MUS 161 Music Appreciation

MUS 205 Intro to Jazz Literature

SPN 201, 202, 203 Second-Year Spanish I, II, III

TA 111 Intro to Theatre

Social Science

Part A. Select a three-course sequence from below:

ANTH 101 Intro to Physical Anthropology

ANTH 102 Intro to Archaeological Prehistory

ANTH 103 Intro to Cultural Anthropology

EC 201, 202, 203 Principles of Economics I, II, III

GEOG 202 World Regional Geography: Latin America/Caribbean

GEOG 203 World Regional Geography: Asia

GEOG 204 World Regional Geography: Africa/Middle East

HST 101, 102, 103 History of Western Civilization

HST 157 History of Middle East and Africa

HST 158 History of Latin America

HST 159 History of Asia

HST 201, 202, 203 History of the United States

PS 201, 202, 203 American Government

PSY 201, 202, 203 General Psychology

PSY 235, 236, 237 Human Development

R 101 Intro to Religious Studies

R 102 Religions of Western World

R 103 Religions of Eastern World

SOC 204, 205, 206 General Sociology

Part B. Select two or three courses (with different prefixes than the sequence selected in Part A) from Part A or below:

ANTH 232 Native North Americans

CJ 100 Survey of the Criminal Justice System

CJ 101 Intro to Criminology (Also SOC 244)

CJ 110 Intro to Law Enforcement

CJ 120 Intro to Judicial Process

CJ 130 Intro to Corrections

CJ 201 Juvenile Delinquency (Also SOC 221)

CJ 202 Violence and Aggression (Also SOC 214)

CJ 220 Intro to Substantive Law

CJ 226 Constitutional Law (Also PS 252)

EC 115 Outline of Economics

EC 213, 214 Principles of Economics

EC 215 Economic Development in the U.S.

EC 220 Contemporary U.S. Economic Issues

GEOG 190 Environmental Studies

PHL 201 Intro to Philosophy

PHL 202 Elementary Ethics

PHL 215 History of Western Philosophy

PS 205 International Relations

PS 206 Comparative European Governments

PS 207 Intro to Political Science

PS 220 U.S. Foreign Policy

PS 252 Constitutional Law (Also CJ 226)

PSY 101 Psychology & Human Relations

PSY 110 Understanding Human Behavior

PSY 215 Intro to Developmental Psychology

PSY 216 Social Psychology

PSY 231 Human Sexuality

R 101 Intro to Religious Studies

R 211 The Old Testament: Historical Background

R 212 The New Testament: Historical Background

SOC 214 Violence and Aggression (Also CJ 202)

SOC 221 Juvenile Delinquency (Also CJ 201)

SOC 244 Intro to Criminology (Also CJ 101)

Science/Mathematics

Part A. Select a three-course laboratory science sequence from below:

BI 101, 102, 103 General Biology

BI 201, 202, 203 General Biology

BI 231, 232, 233 Human Anatomy & Physiology

CH 121, 122, 123 General Chemistry

CH 201, 202, 203 General Chemistry

CH 226, 227, 228 Organic Chemistry

PH 201, 202, 203 General Physics

PH 211, 212, 213 General Physics

Part B. Select two or three courses (with different prefixes than the sequences selected in Part A) from Part A or below:

BI 234 Microbiology

BI 235 Elementary Medical Microbiology

BI 236 Molecular Biology

BI 251 Principles of Wildlife Conservation

BI 252 Wildlife Resources: Birds

CH 234 Quantitative Analysis

CS 133P Intro to Computer Programming: Pascal

CS 161 Intro to Computer Science I

CS 162 Intro to Computer Science II

CS 251 Computer Org. & Assembly Lang. Programming

CS 261 Data Structures

GEOG 121 Physical Geography

GS 104, 105, 106 Physical Science

GS 107 Astronomy

GS 108 Oceanography

MTH 111 College Algebra

MTH 112 Trigonometry

MTH 113 Analytical Geometry

MTH 173B Microcomputers: Basic

MTH 173P Microcomputers: Pascal

MTH 174B Microcomputers: Advanced Basic

MTH 175 Microcomputer Assembly Programming

MTH 211, 212, 213 Fundamentals of Elementary Mathematics

MTH 241, 245 Math for Biological/Management/Social Sciences

MTH 251, 252, 253, 254, 255 Calculus

MTH 256 Applied Differential Equations

MTH 261 Elementary Linear Algebra

MTH 265 Statistics for Scientists and Engineers

Additional college transfer courses for a total of 90 credits.

90

* Additional courses may have been added since this catalog was published. Please check counseling or division offices for current list.

Requirements for the Associate of General Studies Degree

To receive an Associate of General Studies degree at LBCC, the student must:

1. Complete the general education requirements and 55 quarter credits of electives.
2. Complete a minimum of 90 credits.
3. Complete a minimum of 24 credits at Linn-Benton Community College.
4. Maintain a minimum accumulative grade point average of 2.00 or better.
5. Alpha-numeric courses and numeric credit courses numbered 0.5 and higher meet the requirements of the Associate of General Studies degree.

General Education Requirements35

(Courses numbered 0. (zero decimal) will not apply toward general ed requirements.)

Composition(3)

WR 121 English Composition 3

(Student must have passed WR 115 with a grade "C" or better or attained appropriate placement test score on the Placement Test or the Computerized Placement Test to enroll in WR 121.)

Speech (select one)(3)

SP 1.103 Occupational Speech 3

SP 111 Interpersonal Communication 3

SP 112 Fundamentals of Speech 3

SP 113 Intro to Persuasion 3

GRADUATION REQUIREMENTS

Math (4)

MTH 61 Survey of Math Fundamentals 3
and one of the following:

MTH 62 Occupational Trigonometry 1
MTH 63 Industrial Shop Math 1
MTH 64 Business Applications:
Math Fundamentals 1
OA 2.557 Adv. Bus. Math Applications 1

or higher level Math courses

(Student must have attained an appropriate placement test score on the Placement Test or on the Computerized Placement Test to enroll in the above math courses.)

Health and PE (select 4 credits) (4)

HE 112 Emergency First Aid 1
HE 125 Occupational Safety 3
HE 250 Health 3
HE 252 First Aid 3
HE 261 CPR 1
PE 185 Activity Courses 1
PE 231 Lifetime Wellness 3

(Only one activity course may be taken twice to meet general education requirements, and no more than two activity courses per quarter will count toward general education requirements.)

(continued next column)

Humanities/Arts, Social Science, Math/Science * (Select 21 credits from the following areas with a minimum of 3 credits from each of the three groups) .. (21)

The Humanities/Arts group includes fine art, creative writing, foreign languages (200 level courses only), literature, music, philosophy, religion and theatre.

The Social Science group includes criminal justice, history, psychology, sociology, political science, anthropology/archaeology, economics, geography and women's studies.

The Math/Science group includes mathematics, biology, botany, physical science, physics and zoology.

Computer Competency for degree:

(The Computer Competency may be met by taking an approved course that includes computer use by the student or by passing a competency test.)

* **Note:** To determine if a class may be applied toward fulfilling these requirements for the Associate of General Studies degree look for the proper symbol in the Course Description section in the back of this catalog. Humanities/Arts courses will be marked with the symbol ►; Social Science classes will be marked with the symbol ■; Math/Science classes will be marked with the symbol ●; and courses fulfilling the Computer Competency requirement will be marked with the symbol ♦.

Requirements for the Associate of General Studies Degree: Technology Option

To receive an Associate of General Studies degree at LBCC, the student must:

1. Complete the general education requirements and 55 quarter credits of electives.
2. Complete a minimum of 90 credits.
3. Complete a minimum of 24 credits at Linn-Benton Community College.
4. Maintain a minimum accumulative grade point average of 2.00 or better.
5. Alpha-numeric courses and numeric credit courses numbered 0.5 and higher meet the requirements of the Associate of General Studies degree.

General Education Requirements 35

(Courses numbered 0. (zero decimal) will not apply toward general ed requirements.)

Composition (3)

WR 121 English Composition 3

(Student must have passed WR 115 with a grade "C" or better or attained appropriate placement test score on the Placement Test or the Computerized Placement Test to enroll in WR 121.)

Speech (select one) (3)

SP 1.103 Occupational Speech 3
SP 111 Interpersonal Communication 3
SP 112 Fundamentals of Speech 3
SP 113 Intro to Persuasion 3

Math (4)

MTH 61 Survey of Math Fundamentals 3
and one of the following:

MTH 62 Occupational Trigonometry 1
MTH 63 Industrial Shop Math 1
MTH 64 Business Applications:
Math Fundamentals 1
OA 2.557 Adv. Bus. Math Applications 1

or higher level Math courses

(Student must have attained an appropriate placement test score on the Placement Test or on the Computerized Placement Test to enroll in the above math courses.)

Health and PE (select 4 credits) (4)

HE 112 Emergency First Aid 1
HE 125 Occupational Safety 3
HE 250 Health 3
HE 252 First Aid 3
HE 261 CPR 1
PE 185 Activity Courses 1
PE 231 Lifetime Wellness 3

(Only one activity course may be taken twice to meet general education requirements, and no more than two activity courses per quarter will count toward general education requirements.)

Technology (21)

Select 21 credits of professional technical courses that are required in one- and two-year programs.

Computer Competency for degree:

(The Computer Competency may be met by taking an approved course that includes computer use by the student or by passing a competency test.)

* **Note:** To determine if a class may be applied toward fulfilling these requirements for the Associate of General Studies degree look for the proper symbol in the Course Description section in the back of this catalog. Humanities/Arts courses will be marked with the symbol ►; Social Science classes will be marked with the symbol ■; Math/Science classes will be marked with the symbol ●; and courses fulfilling the Computer Competency requirement will be marked with the symbol ♦.

Requirements for the Associate of Science Degree

The Associate of Science is an institutional transfer degree organized in relationship to subject areas of major emphasis. Intended especially to facilitate the transfer of LBCC students to Oregon State University, the general education requirements of the Associate of Science degree align directly with OSU's lower-division baccalaureate core requirements. They also have broad application to the general education requirements of other colleges and universities. Associate of Science degree credits transfer to all four-year institutions on a course-by-course basis. The assignment of LBCC credit to particular requirements of other schools is made by the college or university to which the transfer is being made.

Students pursuing the Associate of Science degree must meet additional program requirements in a specific major-emphasis subject area. See "Programs of Study" for a listing of available major-emphasis programs.

General Education Core Requirements

Skills 16

Writing I 3 credits
WR 121 English Composition

Writing II 3 credits
JN 216 News Reporting and Writing
WR 122, 123 English Composition
WR 123C English Composition: Computer
WR 214 Business English
WR 227 Technical Report Writing
WR 241 Intro to Imaginative Writing: Fiction
WR 242 Intro to Imaginative Writing: Poetry

Speech 3 credits
SP 112 Fundamentals of Speech
SP 113 Intro to Persuasion

Mathematics 4 credits
MTH 105 Intro to Contemporary Mathematics
MTH 111 College Algebra
MTH 112 Trigonometry
MTH 113 Analytic Geometry
MTH 150 Intro to Statistics
MTH 211, 212, 213 Fundamentals of Math I, II, III
MTH 231 Elements of Discrete Mathematics
MTH 241, 245 Math for Biological, Management & Social Sciences
MTH 251, 252, 253, 254 Calculus
MTH 255 Vector Calculus
MTH 256 Applied Differential Equations
MTH 261 Elementary Linear Algebra
MTH 265 Statistics for Scientists and Engineers

GRADUATION REQUIREMENTS

Fitness 3 credits
PE 231 Lifetime Wellness

Computer Competency for degree:

(The Computer Competency may be met by taking an approved course that includes computer use by the student or by passing a competency test.)

*Perspectives 30

(LBCC and Oregon State University)

In addition to meeting the perspectives requirements of the LBCC Associate of Science degree, the following list of courses will be routinely accepted by OSU in fulfillment of the indicated baccalaureate core perspectives requirement. OSU will continue to provide opportunities to evaluate unusual or unique situations as head advisors work with individual transfer students.

Biological Science 4

BI 101, 102, 103 General Biology
BI 201, 202, 203 General Botany
BI 234 Microbiology
BI 235 Molecular Medical Microbiology
BI 236 Molecular Biotechnology

Physical Science 4

CH 121, 122, 123 General Chemistry
CH 201, 202, 203 General Chemistry
CH 221, 222, 223 General Chemistry

GEOG 121 Physical Geography
GS 104, 105, 106 Physical Science
GS 107 Astronomy
GS 108 Oceanography

PH 201, 202, 203 General Physics
PH 211, 212, 213 General Physics with Calculus

Plus a choice of either a Physical Science or a Biological Science course 4

Cultural Diversity 3

ANTH 232 Native North Americans
ENG 207 Literature of the Non-Western World: Asia
ENG 208 Literature of the Non-Western World: Africa
ENG 209 Literature of the Non-Western World: Latin America
GEOG 202 World Regional Geography: Latin America/Caribbean
GEOG 203 World Regional Geography: Asia
GEOG 204 World Regional Geography: Africa/Middle East
HST 157 History of the Middle East & Africa
HST 158 History of Latin America
HST 159 History of Asia
HST 191 History of China: Society and Culture to 1911
HST 192 History of China: 20th Century
R 103 Religions of Eastern World

Literature & the Arts 3

ART 102 Understanding Art
ART 204, 205, 206 Intro to Art History

ENG 104 Intro to Literature: Fiction
ENG 105 Intro to Literature: Drama
ENG 106 Intro to Literature: Poetry
ENG 107, 108, 109 Literature of the Western World
ENG 201, 202, 203 Shakespeare
ENG 204, 205, 206 Survey of English Literature
ENG 207 Literature of the Non-Western World: Asia
ENG 208 Literature of the Non-Western World: Africa
ENG 209 Literature of the Non-Western World: Latin America
ENG 222 Images of Women in Literature
ENG 253, 254, 255 Survey of American Literature
ENG 260 Intro to Women Writers
ENG 275 Bible as Literature
HUM 100 Intro to Humanities
MUS 161 Music Appreciation
MUS 205 Intro to Jazz

Social Processes & Institutions 3

ANTH 103 Intro to Cultural Anthropology
EC 201, 202, 203 Principles of Economics
EC 213, 214 Principles of Economics
HEC 201 Individual and Family Development
PS 104 Problems in American Politics
PS 201, 202, 203 American Government
PS 207 Intro to Political Science
PSY 201, 202, 203 General Psychology
SOC 204, 205 General Sociology

Western Culture 3

ART 204, 205, 206 Intro to Art History
EC 215 Economic Development of the U. S.
ENG 105 Intro to Literature: Drama
ENG 107, 108, 109 Literature of the Western World
ENG 201, 202, 203 Shakespeare
ENG 204, 205, 206 Survey of English Literature
ENG 253, 254, 255 Survey of American Literature
HST 101, 102, 103 History of Western Civilization
HST 150 Science & Culture in the Western Tradition
HST 201, 202, 203 History of the U.S.
PHL 201 Intro to Philosophy
PHL 202 Elementary Ethics
R 102 Religions of the Western World
R 211 The Old Testament: Historical Background
R 212 The New Testament: Historical Background

Plus two additional courses in two areas above (except Biological Science or Physical Science) 6

Major-Emphasis Requirements and Electives 44

(See specific program information)

*Perspectives Courses (LBCC Only)

The following courses are approved to meet LBCC's Associate of Science degree perspectives requirements; *however, Oregon State University may not accept these courses in fulfillment of OSU's baccalaureate core perspectives requirements.*

Cultural Diversity

ANTH 101 Intro to Physical Anthropology
ANTH 102 Intro to Archaeological Prehistory
BA 203 International Business

Literature & the Arts

ENG 112 Speculative Literature
ENG 121 Mystery Fiction
ENG 211 Literature of Athletics
MUS 101 Music Fundamentals
TA 111 Intro to Theatre

Physical Science

CH 111 Introductory Chemistry

Social Processes & Institutions

EC 115 Outline of Economics
PS 205 International Relations
PS 206 Comparative European Governments
PS 220 U.S. Foreign Policy
PS 252 Constitutional Law

PSY 101 Psychology & Human Relations
PSY 110 Understanding Human Behavior
PSY 215 Intro to Developmental Psychology
PSY 216 Social Psychology
PSY 235, 236, 237 Human Development: Child/Adult/Aging

SOC 206 General Sociology
SOC 214 Social Problems: Violence & Aggression
SOC 221 Juvenile Delinquency
SOC 222 Marriage Relationships
SOC 244 Intro to Criminology

Western Culture

ENG 275 Bible as Literature
HSTS 151 History of Science
HUM 100 Intro to Humanities
MUS 105 Intro to Rock Music
MUS 205 Intro to Jazz

*Additional courses may have been approved since the catalog was published. Please check counseling or division offices for current list.

Requirements for the Certificate

Generally, students must have an accumulative grade point average of at least 2.00 to qualify for the one-year certificate. General certificates require a specified number of credit hours. Refer to the "professional technical programs" section in this catalog for specific requirements.

Requirements for the Diploma

Refer to "Diplomas" in the "Programs of Study" section of this catalog. ♦

BUSINESS, TRAINING & HEALTH OCCUPATIONS DIVISION

Dean: Mary Spilde
Associate Dean: April Falkin

The Business, Training and Health Occupations Division has as its central purpose the following:

- Providing contemporary professional training that prepares students for the world of work
- Preparing students for transfer to a four-year school
- Developing the existing work force through training and continuing education
- Strengthening families through delivery of education and services
- Supporting the unemployed and underemployed in developing skills that will lead to self-sufficiency.

To fulfill this mission, the division offers a broad range of academic subjects and programs in transfer, professional and continuing education programs.

Associate degrees are offered in business management, accounting, banking, computer programming, supervision and a variety of office-related areas (including administrative, legal and medical) for those seeking employment. The division also provides an associate degree in Business Administration for those planning to pursue a bachelor's degree.

In addition, several one-year certificate programs are available, including office specialist, medical transcriptionist and accounting clerk. A special one- and two-term Accelerated Secretary Advancement Program is designed to help students quickly update their clerical skills.

The division provides career preparation for health occupations. Programs in health-related fields include nursing (RN), nursing assistant and dental assistant. Classes also are available in emergency medical technician and related health areas. Preparation includes both classroom and clinical experience.

The Training and Business Development Center serves the business and industrial community throughout the district by preparing employees for work in new and existing industries, increasing the productivity of a firm's current employees and assisting local small businesses. The center provides effective responses to the training needs of business by coordinating activities with all LBCC instructional areas.

The Family Resources Department serves parents, transfer students, child care providers

and local employers throughout the district by working to improve the quality of life of children and their families. Each program helps to strengthen families through delivery of educational services to specific populations.

Finally, the Life and Employment Development Department develops programs to assist disadvantaged men and women in the development of skills that will lead to self-sufficiency.

Professional Technical Programs

Accelerated Secretarial Advancement Program (ASAP)

Accounting Clerk

Accounting Technology

Administrative Assistant

Administrative Medical Assistant

Banking and Finance

Business

Business Computer Systems

Dental Assistant

Legal Secretary

Medical Office Specialist

Medical Transcriptionist

Nursing

Nursing Assistant

Supervisory Management

Transfer Programs

Business Administration

Computer Science

Economics

Community Outreach

See the "Community Outreach" section of this catalog for information about services and programs available through the Family Resources Department, Life Employment and Development Department and the Training and Business Development Center. ♦



LIBERAL ARTS & HUMAN PERFORMANCE DIVISION

Dean: Kenneth D. Cheney

The Liberal Arts & Human Performance Division has three educational aims. The first is to teach the richness of human existence, offering an education that is inward looking, personal and self-revealing, and which teaches students about their own uniqueness. The second is to teach the nature of society, human organization and the body politic, offering an education that is outward looking, social and civic, and that teaches students their relationship to other humans. The third is to fit the student for an economic role in society through teaching skills necessary for paid employment.

The division offers a broad range of academic subjects and programs in support of these aims. Collectively, these subjects are often referred to as the liberal arts. As a unifying force, they preserve a sense of community; in the inevitable process of change, they provide continuity; behind the application of rules, they create the values.

The Liberal Arts and Human Performance Division offers course work that fulfills institutional general education requirements in composition, speech, arts and letters, social sciences and physical education and health/wellness. This division also offers programs leading to the Associate of Science (transfer) degree in the following major emphasis areas: humanities, social sciences, criminal justice, journalism and mass communications, theatre, fine arts, pre-education, and physical education and health. The Associate of Applied Science (professional technical) degree is available in graphic communications and criminal justice.

Professional Technical Programs

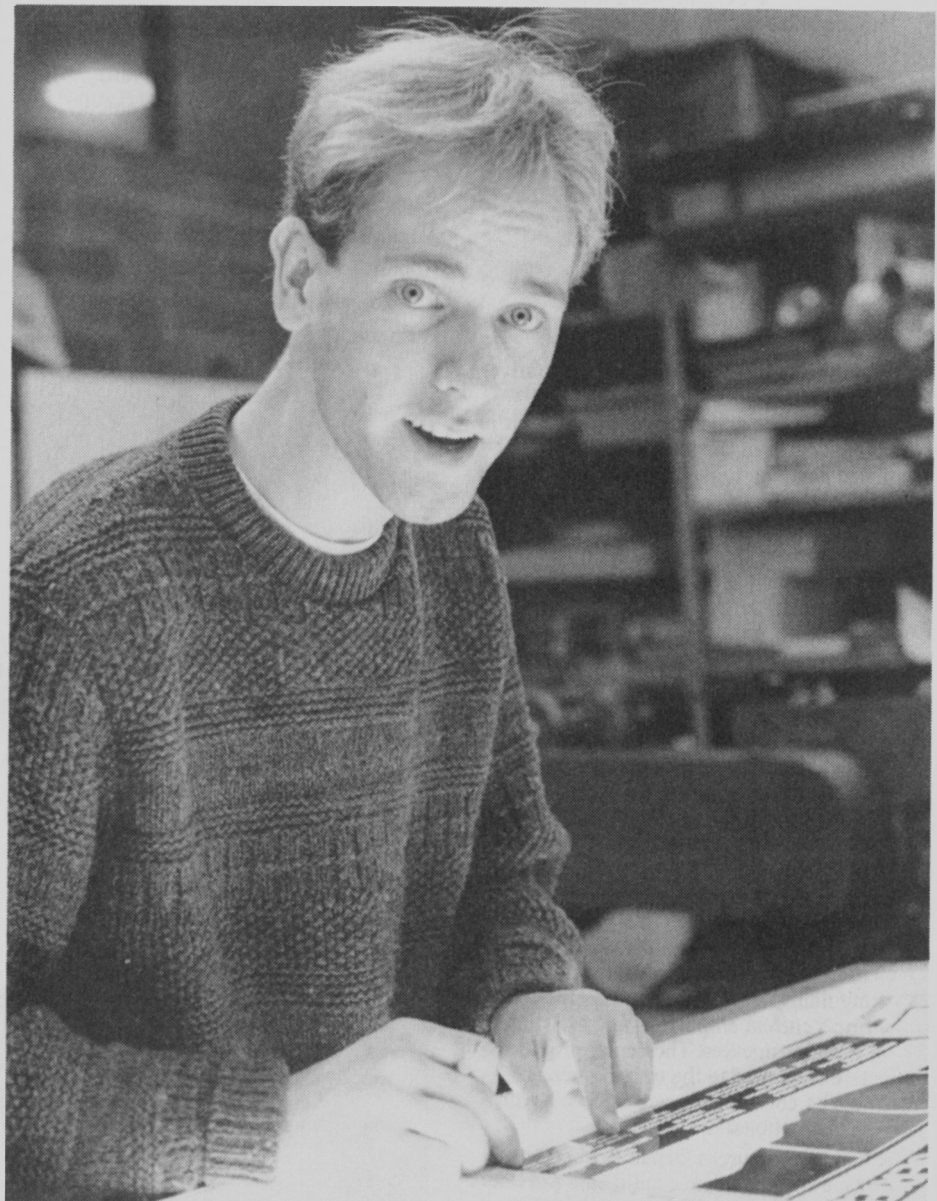
Criminal Justice (also see Transfer Programs)
Graphic Communications (also see Transfer Programs, Art)

Transfer Programs

Anthropology (see Social Sciences)
Art (also see Humanities)
Criminal Justice (also see Professional Technical Programs)
Education (Pre-)
English/Foreign Languages (also see Humanities)
Geography (see Social Sciences)
History (see Social Sciences)
Humanities

Journalism and Mass Communications
Music (also see Humanities)
Philosophy (see Social Sciences and Humanities)
Political Science (see Social Sciences)
Physical Education and Health
Pre-education
Psychology (see Social Sciences)

Religion (see Social Sciences and Humanities)
Social Sciences
Sociology (see Social Sciences)
Spanish (see English/Foreign Languages and Humanities)
Speech (see Theatre/Speech)
Theatre/Speech (also see Humanities) ♦



SCIENCE & INDUSTRY DIVISION

Dean: Peter C. Scott
Associate Dean: Michael Patrick

The Science & Industry Division offers curriculums for students preparing for initial employment, upgrading and skill improvement, or for transferring to a four-year college or university. Science-related associate degree programs are offered in agriculture, animal technology, electronics engineering technology, drafting, horticulture and metallurgy. Industry-related associate degree and/or certificate programs are offered in automotive technology, collision repair, farrier science, heavy equipment mechanics/diesel, manufacturing technology, non-destructive testing, refrigeration/heating/air conditioning and welding.

Transfer degrees are offered in agriculture, animal science, biology, physical science, engineering and mathematics.

Evening classes and special workshops for employed personnel are scheduled throughout the year.

Students may, upon recommendation of the faculty advisor and the Cooperative Work Experience staff, receive transfer or non-transfer credit by participating in the CWE program. Further information may be found in the "Cooperative Work Experience" section of this catalog.

Associate of Applied Science or Associate of Science degrees may be earned upon completion of specified curriculums within the division.

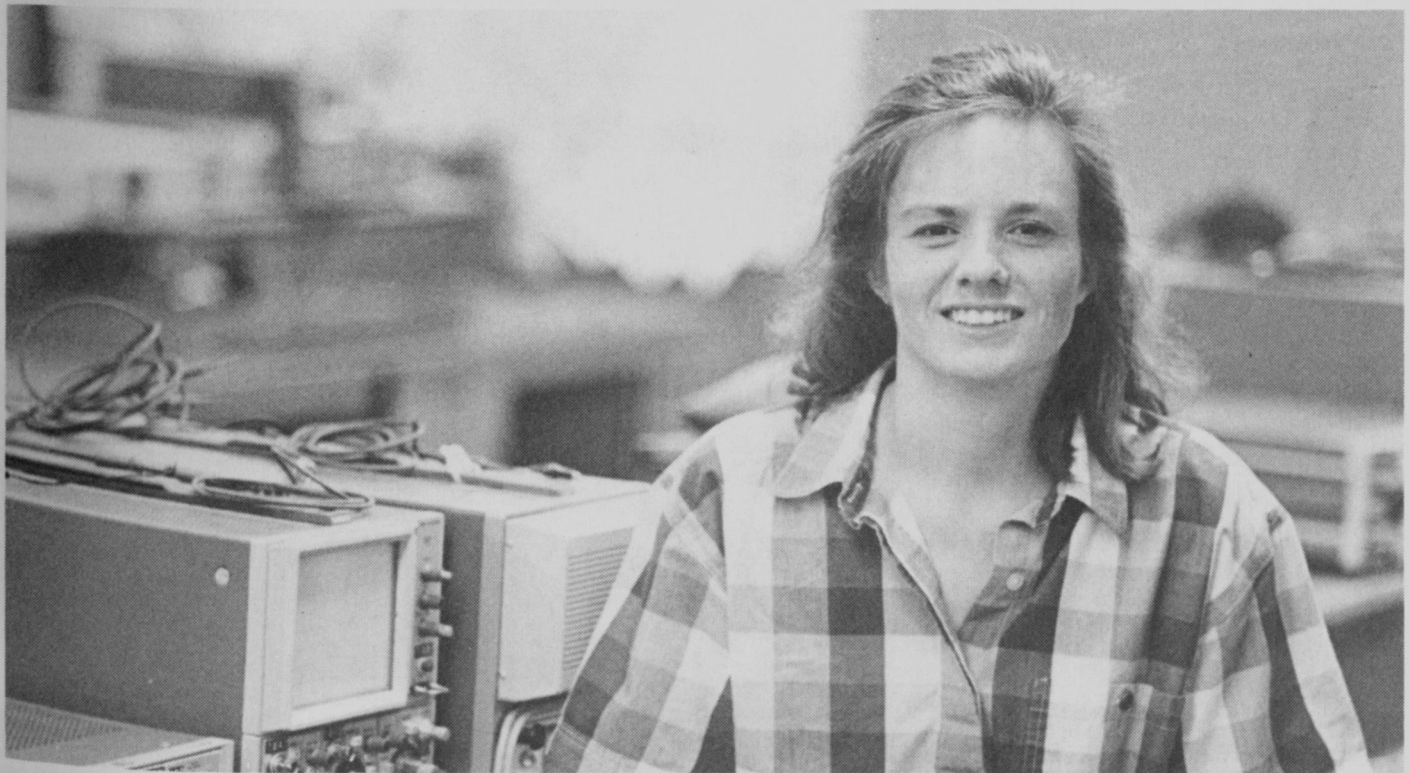
Professional Technical Programs

Agriculture
Animal Technology
Animal Technology-Horse Management Option
Apprenticeship Program
Automotive Technology
Civil Engineering Technology
Collision Repair
Crafts and Trades

Drafting Technology
Electronics Engineering Technology
Farrier Science
Hazardous Materials Management
Heavy Equipment Mechanics/Diesel
Horticulture
Manufacturing Technology
Metallurgy Technology
Non-destructive Testing
Refrigeration, Heating & Air Conditioning
Water/Wastewater Technology
Welding

Transfer Programs

Agriculture Business Management
Agricultural Education
Animal Science
Biological Sciences
Engineering Transfer
Mathematics ♦



STUDENT SERVICES AND EXTENDED LEARNING DIVISION

Dean: Ann Smart

Associate Dean of Extended Learning: Susan Wolff

The Student Services and Extended Learning Division provides classes and services to students in the communities of Linn and Benton counties. The focus of this division is educational access, student success and development, student services and student advocacy.

Educational Access: Classes are provided through the Extended Learning centers located in Albany, Corvallis (Benton Center), Lebanon and Sweet Home. Classes are offered days, evenings and weekends.

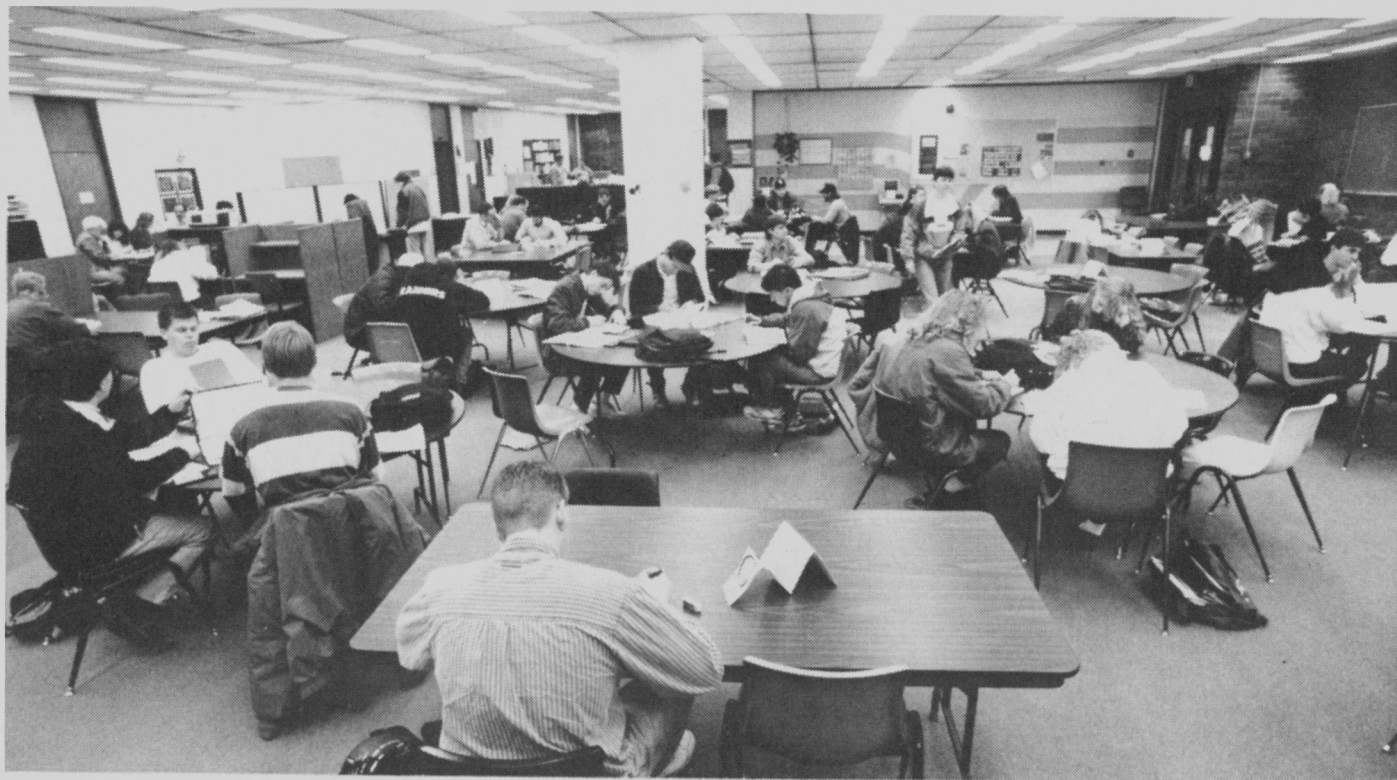
Educational access also is provided through the Career Center, which helps students discover career possibilities that fit their skills and interests. The Financial Aid Office works with students to help them find resources for their education.

Student Success and Development: The Counseling Center offers career guidance, advising and strategies for being a successful student. At the Assessment Center, all fully admitted students are evaluated for placement in writing, reading and math classes. If skills need improvement, the Developmental Studies Department offers reading, writing, spelling and study skills classes. Adult Basic Education (ABE), General Educational Development (GED) classes and the Adult High School Diploma program are offered on campus and at all Extended Learning centers. Supplemental Instruction and Tutoring give students extra help to be successful in their classes.

Leadership skills are taught and student life is enhanced by a variety of programs offered by Student Programs and Student Government. International/Intercultural Student Programs help integrate students with diverse backgrounds into the college and broaden the horizons of local students. The Women's Center supports the special needs of female students.

Student Services: Student Services are provided throughout the district for all students and include admissions, registration, financial aid, testing (including GED tests), disabled student services, exam proctoring, Cooperative Work Experience (CWE) job placement, library, counseling, media and computer labs. Cooperative Work Experience helps students develop skills on the job while earning college credit. The Learning Center is a one-stop location for assistance in math, writing and other subject areas. Special services are provided for disabled students and international/intercultural students. Additionally, the Associate Dean of Student Services is a resource for students in determining their rights and interpreting policy.

Student Advocacy: Advocacy for students is provided by all staff in the division. The interests of the students throughout the district are represented as policies and procedures are developed. ♦



PROFESSIONAL TECHNICAL PROGRAMS



- Accelerated Secretarial Advancement Program
- Accounting Clerk
- Accounting Technology
- Administrative Assistant
- Administrative Medical Assistant
- Agriculture
- Animal Technology
- Animal Technology: Horse Management Option
- Apprenticeship Program
- Automotive Technology
- Banking & Finance
- Business
- Business Computer Systems
- Chef Training
- Civil Engineering Technology
- Collision Repair Technology
- Conference & Resort Management
- Crafts & Trade
- Criminal Justice
- Dental Assistant
- Drafting Technology
- Electronics Engineering Technology
- Farrier Science
- Graphic Communications
- Hazardous Materials Management
- Heavy Equipment Mechanics/Diesel
- Horticulture
- Legal Secretary
- Manufacturing Technology
- Medical Office Specialist
- Medical Transcriptionist
- Metallurgy Technology
- Non-destructive Testing
- Nursing
- Nursing Assistant
- Office Specialist
- Refrigeration, Heating & Air Conditioning
- Restaurant & Catering Management
- Supervisory Management
- Water/Wastewater Plant Operations
- Water/Wastewater Technology
- Welding Technology

ACCELERATED SECRETARIAL ADVANCEMENT PROGRAM (ASAP)

Program Advisor:
Mary Lou McPheeters

ASAP (Accelerated Secretarial Advancement Program or As Soon As Possible) is designed for students to update their clerical skills and become more employable as quickly as possible. Students who are accepted into this program must be self-starters and have strong basic mathematics, English and typing skills. They must be willing to devote approximately 26 hours per week to classroom instruction, plus at least 10 additional hours a week to homework, for a one-term or two-term period. To be accepted into this program, students must take an LBCC placement test, achieve minimum scores on the placement exam, and type 35-40 words a minute on a typing timed writing. Students who complete the program will receive ASAP Certificates of Completion.

Skills classes are taught in self-paced laboratory classrooms. New technology is introduced through concepts classes and through hands-on experience with modern equipment. All programs provide hands-on experience with microcomputers and word processing.

Please contact the program advisor for program prerequisites and an application form.

One-Term Certificate in Accelerated Secretarial Advancement Program

Major Requirements 15

OA 2.500 Business Orientation*	1
OA 2.515 Business Math with Calculators	1
OA 2.588 Editing Skills for Info. Processing	3
OA 2.652 Filing	1
OA 122 Typing II: Formatting	2
OA 124 Typing: Speed & Accuracy Dev.	3
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2

* or can take:
OA 2.616 Job Success Skills I or
OA 2.617 Job Success Skills II

Two-Term Certificate in Accelerated Secretarial Advancement Program

Major Requirements 30

Term One

OA 2.500 Business Orientation	1
OA 2.515 Business Math with Calculators	1
OA 2.588 Editing Skills for Info. Processing	3
OA 2.652 Filing	1
OA 122 Typing II: Formatting	2
OA 124 Typing: Speed & Accuracy Dev.	3
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2

Term Two

OA 2.515 Business Math with Calculators	2
OA 2.527 Transcribing Machines I	3
OA 2.551 Office Communications	3
OA 2.610 Office Procedures	3
OA 2.644 Civil Service Preparation	1
OA 2.683 Computerized Records Management	3

ACCOUNTING TECHNOLOGY

Program Advisors:

Maynard Chambers, Al Walczak

Faculty:

Gerry Conner, Wendy Krislen, Larry Schuetz, Andy VanderPlaatt

Two programs are available for students interested in accounting but not desiring a four-year degree: the Accounting Clerk Certificate (one year) and the Accounting Technology degree (two years). Both prepare the student for entry-level positions in bookkeeping and accounting; however, the degree students from the two-year program should be able to enter at a higher level and most likely will advance further. Overall employment opportunities in accounting and bookkeeping are good to excellent most of the time.

The two-year program is designed to prepare students for career positions in accounting. Accounting positions exist in public accounting firms; retail, industrial and manufacturing businesses; and in various government agencies. Career opportunities include accounting clerk, full-charge bookkeeper, junior accountant, internal auditor and management trainee.

Students wanting to take individual courses to qualify for specific employment opportunities may do so with the consent of the Business Management Department.

The Accounting Technology curriculums lead to an Associate of Applied Science degree in Accounting Technology or to a one-year certificate in Accounting Clerk.

Associate of Applied Science in Accounting Technology

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 74-75

Fall - First Year

BA 2.530 Practical Accounting I	4
BA 101 Intro to Business	4
MTH 65 Elementary Algebra	(4)
WR 121 English Composition	(3)

Winter

BA 2.531 Practical Accounting II	4
BA 2.684 Computerized Accounting/Payroll	3
BA 171 Intro to Business Computer Systems	4
OA 2.515 Business Math with Calculators	3
OA 121A Typing: Keyboarding/Computers	2

Spring

BA 2.532 Practical Accounting III	4
BA 1100 Using the PC: DOS	1
BA 110S Using the PC: Spreadsheets	2
BA 285 Business Relations/Global Economy	(3)
OA 201A Beginning WordPerfect	2
SP 112 Fundamentals of Speech	(3)

Fall - Second Year

BA 2.127 Government Accounting	3
BA 2.595 Professional Accounting I	3
BA 206 Principles of Management	3
BA 223 Principles of Marketing	4
Science, Technology & Society	(3)

Winter

BA 2.132 Total Quality Management	3
BA 2.534 Cost Accounting	3
BA 2.596 Professional Accounting II	3
Elective	3

Law Option	3 - 4
(Select one)	
BA 2.518 Commercial Law	3
BA 230 Business Law	4

Spring

BA 2.597 Professional Accounting III	3
BA 207 Labor Management Relations	3
BA 222 Financial Management	3
EC 115 Outline of Economics	4
Health or PE	(3)

Applies toward General Ed. Requirements.
Credits not included in Major Requirements total.

One-Year Certificate in Accounting Clerk

Major Requirements 46

Fall

BA 2.530 Practical Accounting I	4
BA 101 Intro to Business	4
MTH 65 Elementary Algebra	4
WR 121 English Composition	3

Winter

BA 2.531 Practical Accounting II	4
BA 2.684 Computerized Accounting/Payroll	3
BA 171 Intro to Business Computer Systems	4
OA 2.515 Business Math with Calculators	3
OA 121A Typing: Keyboarding/Computers	2

Spring

BA 2.532 Practical Accounting III	4
BA 1100 Using the PC: DOS	1
BA 110S Using the PC: Spreadsheets	2
BA 285 Business Relations/Global Economy	3
OA 201A Beginning WordPerfect	2
SP 112 Fundamentals of Speech	3

ADMINISTRATIVE ASSISTANT

Program Advisors:

Mary Lou McPheeters, Sue Trautwein

This two-year professional technical program prepares students for administrative office assistant, secretarial and general office careers. Students in the Administrative Assistant program develop a high level of computer skills, particularly word processing. The program also emphasizes developing good English and communication skills.

Duties of the Administrative Assistant may include making travel and meeting arrangements, filing, typing, composing letters, greeting visitors and assisting the manager. Graduates may progress rapidly from entry-level jobs to more responsible positions. An individual with good skills will find it easy to relocate and easy to leave and re-enter the job market.

Skills classes are taught in self-paced office laboratory classrooms. New technology is introduced both through concepts courses and through hands-on experience with modern equipment.

The Administrative Assistant program is designed to be completed in two years. This assumes, however, that the entering student already knows how to type by touch and has been placed at or above the following levels on the college Placement Test: WR 115 Intro to Writing and MTH 60 Beginning Algebra. It is advisable to take the college Placement Test as early as possible. If developmental course work is required, we recommend that it be taken summer term prior to enrolling in the regular degree program. Pre-training might include some or all of the following courses:
OA 121 Typing I: Keyboarding (2 credits),
OA 123A Typing: Skill Building/Computers (2 credits), *RD 1.175 or RD 1.176 Reading Improvement I or II* (3 credits), *EN 1.126 or EN 1.130 Developmental English* (3 credits), *MTH 20 Basic Mathematics* (4 credits).

Associate of Applied Science in Administrative Assistant

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 77

Fall - First Year

OA 2.500 Business Orientation	1
OA 2.515 Business Math with Calculators	3
OA 123A Typing: Skill Building/Computers	2
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2
PE 231 Lifetime Wellness*	(3)
WR 121 English Composition	(3)

Winter

OA 2.551 Office Communications	3
OA 2.568 DOS and Windows for Beginners	2
OA 2.588 Editing Skills for Info. Processing	3
OA 2.616 Job Success Skills I	1
OA 2.653 Automated Office Concepts	3
OA 122 Typing II: Formatting	2
OA 202B WordPerfect with Windows	2

Spring

BA 2.530 Practical Accounting I	4
BA 110S Using the PC: Spreadsheets	2
OA 2.527 Transcribing Machines I	3
OA 2.610 Office Procedures	3
OA 2.617 Job Success Skills II	1
OA 2.652 Filing	1
OA 201B Microsoft Word with Windows	2

Fall - Second Year

BA 2.684 Computerized Accounting/Payroll	3
OA 2.528 Transcribing Machines II	3
OA 2.647 Administrative Management	3
OA 114 Alphabetic Shorthand	3
OA 124 Typing: Speed & Accuracy Dev.	3

Winter

MTH 61 Survey of Math Fundamentals	(3)
OA 2.557 Adv. Business Math Applications ...	(1)
OA 2.613 On-the-Job Training	4
OA 2.682 Desktop Publishing	3
OA 2.683 Computerized Records Mngmt	3
OA 214 Applied Alphabetic Shorthand	3

Spring

BA 285 Business Relations/Global Economy ..	(3)
OA 2.613 On-the-Job Training	4
OA 203 Word Processing Practicum	3
SP 111 Interpersonal Communications	(3)
Science, Technology & Society	(3)

* HE 250, HE 252 and/or Multi-Media First Aid and/or PE activity courses may be substituted for Lifetime Wellness.

Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

ADMINISTRATIVE MEDICAL ASSISTANT

Program Advisor:

Mary Ann Lammers

The Administrative Medical Assistant program prepares students to do front office work in doctors' offices, clinics or hospitals. Duties may include scheduling and receiving patients; obtaining patient's data; maintaining medical records, typing and medical transcription; handling telephone calls, correspondence, reports and manuscripts; and assuming responsibility for office management, insurance matters, office accounts, fees and collections. Students work for 240 hours in a medical office during their second year--this provides a bridge between classroom and career.

Skills classes are taught in self-paced laboratory classrooms. New technology is introduced both through concepts courses and through hands-on experience with modern equipment.

The Administrative Medical Assistant program is designed to be completed in two years. This assumes, however, that the entering student already knows how to type by touch and has been placed at or above the following levels on the college Placement Test: WR 115 Intro to Writing and MTH 60 Beginning Algebra. It is advisable to take the college Placement Test as early as possible. If developmental course work is required, we recommend that it be taken summer term prior to enrolling in the regular degree program. Pre-training might include some or all of the following courses: *OA 121 Typing I: Keyboarding* (2 credits), *OA 123A Typing: Skill Building/Computers* (2 credits), *RD 1.175 or RD 1.176 Reading Improvement I or II* (3 credits), *EN 1.126 or EN 1.130 Developmental English* (3 credits), *MTH 20 Basic Mathematics* (4 credits).

Associate of Applied Science in Administrative Medical Assistant

General Ed. Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 79

Fall - First Year

AH 5.630 Medical Terminology I	3
OA 2.500 Business Orientation/Medical	1
OA 2.515 Business Math with Calculators	3
OA 2.652 Filing	1
OA 122 Typing II: Formatting	2
OA 124 Typing: Speed & Accuracy Dev.	3
WR 121 English Composition	(3)

Winter

AH 5.633 Medical Terminology II	3
BA 285 Business Relations/Global Economy ..	(3)
OA 2.588 Editing Skills for Info. Processing ..	3
OA 2.616 Job Success Skills I/Medical	1
OA 2.671 Medical Law and Ethics	2
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2

Spring

AH 5.634 Medical Terminology III	3
HE 252 First Aid	(3)
OA 2.527 Transcribing Machines I	3
OA 2.617 Job Success Skills II/Medical.	1
OA 2.656M Info. Processing Practicum:	
Medical Reports	3
OA 2.670 Medical Office Procedures	3

Fall - Second Year

AH 5.625 Clinical Office Procedures	4
BA 2.530 Practical Accounting I	4
OA 2.524 Medical Transcription I	3
OA 2.551 Office Communications	3
OA 2.647 Administrative Management	3

Winter

OA 2.525 Medical Transcription II	3
OA 2.613 On-the-Job Training	4
OA 2.672 Medical Coding Procedures	3
OA 2.673 Computerized Medical Accounts	
Receivable	3
Science, Technology & Society	(3)

Spring

BA 2.684 Computerized Accounting/Payroll	3
MTH 61 Survey of Math Fundamentals	(3)
OA 2.544 Medical Insurance Procedures	3
OA 2.557 Adv. Business Math Applications ..	(1)
OA 2.613 On-the-Job Training	4
SP 111 Interpersonal Communications	(3)

Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

AGRICULTURE

Faculty:

Gregory Paulson

The Agriculture curriculum is based on necessary competencies identified by industry and reviewed by advisory committees. Students learn facts and skills necessary for entry-level technical employment.

Neither the certificate nor the Associate of Applied Science degree programs have official prerequisites. Students do take a variety of science-oriented courses, however, and are expected to have basic mathematics skills. In order to graduate with an AAS degree, each student needs to complete a four-credit algebra course while at LBCC.

All of the Agriculture program classes are offered during the day and part-time enrollment is common. Many students start in the middle of the academic year, but two full years are required to complete the AAS degree. If students attend part time, they will need to attend longer to complete the program. While not every course listed in the Agriculture program must be taken in the order shown in the curriculum, some courses are offered only every other year. Consequently, students need to take those particular courses in the order they are offered.

Instructional facilities, including a greenhouse, labs, vegetable and ornamental gardens, a land lab and the campus grounds, are used for demonstrations, skill building and evaluation.

The Agriculture curriculums lead to an Associate of Applied Science degree or a One-Year Certificate.

Associate of Applied Science in Agriculture

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree

Major Requirements 60

Fall - First Year

AG 8.125 Soils I	3
AG 8.131 Pest Management	3
AG 8.165 Plant Science	4
AG 111 Computers in Agriculture	3

Winter

AG 8.126 Soils II	3
AG 8.130 Agricultural Chemicals	4
AG 8.138 Irrigation Systems	3

Spring

AG 8.167 Forage Crops	3
CSS 105 Soils and Man	3
CSS 200 Principles of Crop Science	4

Fall - Second Year

ARE 211 Management in Agriculture	4
*Laboratory Science	4

Winter

ARE 221 Marketing in Agriculture	3
*Laboratory Science	4

Spring

HE 252 First Aid	(3)
HE 261 CPR	1
WE 1.201 CWE Seminar	1
WE 1.2801 CWE Agriculture	11

Electives 12

Business, Humanities, Industrial, Spanish or Animal Technology courses

* Biological or Physical Science

Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

One-Year Certificate in Agriculture

Major Requirements 33

Fall

AG 8.125 Soils I	3
AG 8.131 Pest Management	3
AG 8.165 Plant Science	4
AG 111 Computers in Agriculture	3

Winter

AG 8.126 Soils II	3
AG 8.130 Agricultural Chemicals	4
AG 8.138 Irrigation Systems	3

Spring

AG 8.167 Forage Crops	3
CSS 105 Soils and Man	3
CSS 200 Principles of Crop Science	4

Math, writing courses at appropriate level (based on Placement Test scores) 7

91

The program has an open-door policy so that students interested in a particular aspect of the program may enroll for any portion of the program. The institution supplies an adequate line of equipment and tools that are utilized during lab sessions.

The Animal Technology curriculum leads to an Associate of Applied Science degree.

Associate of Applied Science in Animal Technology

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree

Major Requirements 54-55

Production Courses Option 8

(Select two)	
ANS 220A Applied Beef Production	4
ANS 220D Applied Sheep Production	4
ANS 220E Applied Swine Production	4
ANS 221 Introductory Horse Science	4

Economics Option 3-4

(Select one)	
AG 8.171 Farm Business Analysis	3
ARE 211 Management in Agriculture	4

Fall - First Year

AG 8.125 Soils I	3
AG 111 Computers in Agriculture	3
MT 65 Elementary Algebra	(4)

Winter

AG 8.126 Soils II	3
AT 8.150 Genetic Improvement/Livestock	4

Spring

AG 8.167 Forage Crops	3
ANS 231 Livestock Evaluation	3

Fall - Second Year

BI 101 General Biology	4
------------------------------	---

Winter

ANS 210 Feeds and Feed Processing	4
ARE 221 Marketing in Agriculture	3
AT 8.156 Livestock Diseases I	3
BI 102 General Biology	4

Spring

ANS 211 Applied Animal Nutrition	3
AT 8.157 Livestock Diseases II	3

Electives 17-18

Additional courses or approved CWE.

90-92

Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

ANIMAL TECHNOLOGY

Faculty:

Rick Klampe, James Lucas, Bruce Moos

LBCC is the only community college in the Willamette Valley with an Animal Technology program. The program uses the community as a natural instructional laboratory and provides students with knowledge and skills useful in returning to the farm, in working in production livestock occupations, in entering into livestock-related fields or in transferring to four-year institutions to continue study.

The Animal Technology courses are designed to provide a maximum of practical experience through hands-on laboratory sessions. For those already employed in specific agricultural fields, skills can be upgraded. Students in the program also have an opportunity to participate in competitive collegiate livestock judging.

ANIMAL TECHNOLOGY: HORSE MANAGEMENT OPTION

Faculty:

Rick Klampe, James Lucas, Bruce Moos

The Animal Technology Department offers a two-year Associate of Applied Science degree in Horse Management. The degree provides students with the knowledge and skills useful in entering occupations in the horse industry or in transferring to four-year institutions to continue study.

The program uses the local horse community as a natural instructional laboratory, and the courses are designed to provide a maximum of practical hands-on experience.

Associate of Applied Science in Animal Technology: Horse Management Option

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 55-57

☐ Training/Riding Option 2-4
(Select one sequence)

AT 8.163 Schooling the Horse I 2

AT 8.164 Schooling the Horse II 2

or

AT 8.174 Beginning Western Equitation 1

AT 8.175 Intermediate Western Equitation 1

Fall - First Year

AG 111 Computers in Agriculture 3

ANS 121 Animal Science 4

ANS 221 Introductory Horse Science 4

Winter

ANS 210 Feeds and Feed Processing 4

AT 8.150 Genetic Improvement/Livestock 4

*MTH 65 Elementary Algebra (4)

Spring

AG 8.167 Forage Crops 3

ANS 211 Applied Animal Nutrition 3

ANS 220C Practical Horse Skills 3

Fall - Second Year

ANS 222 Young Horse Training 2

BI 101 General Biology 4

Winter

ARE 221 Marketing in Agriculture 3

AT 8.156 Livestock Diseases I 3

AT 8.177 Horse Breeding Management 3

BI 102 General Biology 4

Spring

AT 8.157 Livestock Diseases II 3

AG 8.171 Farm Business Analysis 3

Electives 16

90-92

* Applies toward General Ed. Requirements.
Credits not included in Major Requirements
total.

APPRENTICESHIP PROGRAM

Advisor:

Mike Patrick

The Science and Industry Division serves as the center for apprenticeship training. Specialized curricular offerings have been developed to meet the needs of apprentices working full time in various trades. Being an indentured apprentice is a condition for entering related training classes.

Apprenticeship is a two-fold program: the indentured apprentice learns skills through on-the-job work experience and receives approximately 144 clock hours of related training in the classroom per year.

Classes currently are being offered for the following crafts and trades: inside wireman, machinist, industrial maintenance mechanic, pipefitter, welder, manufacturing plant electrician, instrumentation and industrial millwright.

Upon completion of the required training program, the apprentice is eligible to take a state-required examination of journeyman standing. The journeyman also has the opportunity to apply for admission to LBCC and to earn an associate degree. The recognized journeyman will be granted 22 credits toward the Industrial Crafts and Trades degree. An additional 71 credits must be earned; of these credits, 19 must be general education courses.

An apprentice selects a minimum of 49 credits of technical and related course work as established by the apprenticeship training committee. Each trade area has a list of required core courses and elective courses that lead the apprentice toward journeyman status and the Associate of Applied Science degree. An apprentice does not have to earn the AAS degree in order to attain journeyman status. However, the degree option is an additional opportunity for the journeyman.

Information on entrance procedures and requirements for apprenticeship-related training is available from the Science and Industry Division office.

Associate of Applied Science in Crafts and Trades

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

*Major Requirements (minimum) 71

90

* The journeyman card replaces 22 of these major
requirement credits.

Contact the Apprenticeship Office, 967-8856, for a
copy of the classes that apply to specific crafts or
trades.

AUTOMOTIVE TECHNOLOGY

Faculty:

David E. Carter, Mike Henich, Allan Jackson,
Carl Reeder

The Automotive Technology program provides students with the facilities, equipment and instruction necessary to develop skills and abilities in auto mechanical work. The curriculum is designed to permit student entry into the program at the beginning of each term.

Upon completing the program, a student may enter the auto service trades as an auto mechanic, specialty shop operator or in a related position. Starting salaries range from \$7 to \$14 per hour.

Former LBCC students are employed in many other states, signifying the mobility of the auto mechanic. The Student Placement Center of the college or department faculty will provide assistance in obtaining a post-college position.

The Auto Tech program supports student participation in Vocational Industrial Clubs of America (VICA) and student competition in United States Skills Olympics (USSO).

Through student involvement in fund-raising projects, funds are made available to pay student cost of travel, lodging and entry fees in the annual state VICA skills contest. Any student who earns a first place at the state level qualifies for USSO and also will have expenses paid to participate in the national competition.

In addition to the usual books and supplies, students should expect to purchase a general mechanics tool set, as prescribed by the department.

Mechanical Processes I, II and III are required for all Automotive Technology majors and must be taken concurrently with their major field of study. Course content may be challenged for full or partial credit.

The Automotive Technology curriculums lead to an Associate of Applied Science degree or a two-year certificate.

(Continued on next page)

Associate of Applied Science in Automotive Technology

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 81

Fall - First Term

AU 3.295 Power Train Systems	10
*AU 3.307 Mechanical Processes I	2
WD 4.151 Welding I	2

Winter

AU 3.296 Suspension/Braking Systems	10
*AU 3.308 Mechanical Processes II	2
*HE 125 Occupational Safety	(3)
*ME 3.447 Metallurgy for Mechanics	2

Spring

AU 3.297 Electrical & Fuel Systems	10
AU 3.301 Service & Repair Practices/CWE	1
*AU 3.309 Mechanical Processes III	2
MA 4.130 Machine Processes	2
*MTH 61 Survey of Math Fundamentals	(3)
*MTH 64 Business Applications: Math Fundamentals	(1)

Fall-Second Year

*AU 3.298 Automotive Tune-up	10
AU 3.301 Service & Repair Practices/CWE	1
*Cultural Diversity & Global Awareness	(3)

Winter

*AU 3.299 Automotive Engines	10
AU 3.301 Service & Repair Practices/CWE	1
*AU 3.303 Mobile A/C & Comfort Systems I	3
*WR 121 English Composition	(3)

Spring

*AU 3.300 Automatic Transmissions	10
*AU 3.304 Mobile A/C & Comfort Systems II	3
*Science, Technology & Society	(3)
*SP 1.103 Occupational Speech	(3)

- * Courses marked with an asterisk offered that term only.
- * Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

Two-Year Certificate in Automotive Technology

Major Requirements 93

Fall-First Year

AU 3.295 Power Train Systems	10
*AU 3.307 Mechanical Processes I	2
MA 4.130 Machine Processes	2
WD 4.151 Welding I	2

Winter

AU 3.296 Suspension and Braking Systems	10
*AU 3.308 Mechanical Processes II	2
HE 125 Occupational Safety	3
*ME 3.447 Metallurgy for Mechanics	2

Spring

AU 3.297 Electrical and Fuel Systems	10
*AU 3.309 Mechanical Processes III	2
MTH 61 Survey of Math Fundamentals	3
MTH 64 Business Applications: Math Fundamentals	1

Fall-Second Year

*AU 3.298 Automotive Tune-Up	10
AU 3.301 Service & Repair Practices/CWE	1
WR 115 Intro to Writing	3

Winter

*AU 3.299 Automotive Engines	10
AU 3.301 Service & Repair Practices/CWE	1
*AU 3.303 Mobile A/C & Comfort Systems I	3

Spring

*AU 3.300 Automatic Transmissions	10
AU 3.304 Mobile A/C & Comfort Systems II	3
*SP 1.103 Occupational Speech	3

Computer Competency is required.

- * Courses marked with an asterisk are offered that term only.

BANKING AND FINANCE

Program Advisor:

Wendy Krislen

Faculty:

Maynard Chambers, Gerry Conner, Andy VanderPlaat, Al Walczak

This two-year program was planned in cooperation with the Linn-Benton Chapter of the American Institute of Banking and is designed both for those seeking careers with financial institutions and for those already working for financial institutions. Career opportunities are found in banks, savings and loan firms, consumer finance companies and similar financial companies.

Note: This program is being revised. See an advisor for program information.

BUSINESS

Program Advisors:

Wendy Krislen, Andy VanderPlaat

Faculty:

Maynard Chambers, Gerry Conner, Larry Schuetz, Al Walczak

This two-year program is designed to meet the needs of people preparing for employment in a variety of business occupations. The successful completion of this course of study should afford the graduate an entry-level position and lead eventually to middle-management positions. Career opportunities include management positions in retail business, wholesale firms, specialty buying and selling, public utilities, insurance companies, real estate agencies, transportation firms and manufacturing industries.

Students choose an area of concentration at the beginning of their second year from the following options:

- Marketing and Sales
- Financial Services
- Management
- Human Resources/Personnel
- General Business

The Business curriculum leads to an Associate of Applied Science degree.

Associate of Applied Science in Business

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 75-76

Fall - First Year

BA 101 Intro to Business	4
*MTH 65 Elementary Algebra	(4)
OA 121A Typing: Keyboarding/Computers	2
SD 215 Survey of Accounting	3
*WR 121 English Composition	(3)

Winter

BA 2.132 Total Quality Management	3
BA 171 Intro to Business Computer Systems	4
BA 206 Principles of Management	3
*BA 285 Business Relations/Global Economy	(3)
SD 216 Financial Analysis for Managers	3

Spring

BA 110Q Using the PC: DOS	1
BA 110S Using the PC: Spreadsheets	2
BA 223 Principles of Marketing	4
EC 115 Outline of Economics	4
OA 201A Beginning WordPerfect	2
*SP 112 Fundamentals of Speech	(3)

Fall - Second Year

This program is being revised. Second-year students in the 1994-95 academic year should see program advisor.

BUSINESS COMPUTER SYSTEMS

Program Advisors/Faculty:

Philip V. Clark, Gladys Norman,
Peggy Weems, Kitson Yu

The Business Computer Systems program develops graduates able to successfully enter the job market in a variety of business computer-related fields. The student learns to apply training in accounting, business programming languages, various application programs and analysis skills to solving actual business problems. Students successfully completing the full two-year curriculum are granted an Associate of Applied Science degree in Business Computer Systems.

Students in this program spend a considerable amount of their time in the computer center working on terminals that interact with a mainframe and on microcomputers. The lab is well equipped with modern hardware and software. Students have access to a VAX mainframe and networked IBM-compatible personal computers for completing assignments. Some Macintosh computers also are available.

The program should be attractive to a wide range of students, including those who are part time and want only certain courses to upgrade computer-related skills and those who desire career changes. The courses are easily transferrable to four-year degree programs in Management Information Systems or related fields.

Associate of Applied Science in Business Computer Systems

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 73-76

Fall - First Year

BA 101 Intro to Business	4
BA 171 Intro to Business Computer Systems	4
OA 121A Typing I: Keyboarding/Computers	2
WR 121 English Composition	(3)
Health or PE	(1)

Winter

BA 110D Using the PC: Data Base	2
BA 110S Using the PC: Spreadsheets	2
CS 161 Intro to Computer Science I	4
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2
Health or PE	(1)
Math	(4)

Spring

BA 110H Using the PC: Hard Disk Management	1
CS 145 Hardware/Software Selection & Support ..	3
CS 217 Intro to COBOL Programming	4
WR 227 Tech Report Writing	3
Cultural Diversity/Global Awareness	(3)
Speech	(3)

Fall - Second Year

CS 233C Advanced COBOL	4
CS 244 Systems Analysis & Design	4
Electives (see list below)	4

Accounting Option 3-4

(Select one)

BA 2.530 Practical Accounting I	4
BA 211 Principles of Accounting I	3

Winter

CS 162 Intro to Computer Science II	4
CS 275 Database Systems: SQL & Oracle	4
Electives (see list below)	4

Accounting Option 3-4

(Select one)

BA 2.531 Practical Accounting II	4
BA 212 Principles of Accounting II	3

Spring

WE 1.280T CWE Data Processing	7
Health or PE	(1)
Science, Technology & Society	(3)

Accounting Option 3-4

(Select one)

BA 2.532 Practical Accounting III	4
BA 213 Principles of Accounting III	3

92-95

Approved electives include:

BA 110O Using the PC: DOS	1
BA 275 Business Quantitative Methods	4
CS 251 Computer Org. & Assembly Language ..	4
CS 261 Data Structures	4
CS 279 Network Management (NOVELL)	3
OA 201B Microsoft Word with Windows	1

Applies toward General Ed. Requirements.

Credits not included in Major Requirements total.

BUSINESS TECHNOLOGY

Faculty:

Illa Atwood, Mary Ann Lammers,
Peggy Lind, Mary Lou McPheeters,
Joyce Moreira, Carla Mundt, Sally Stouder,
Sue Trautwein

See the individual program listings in the Professional Technical Programs section for Administrative Assistant, Administrative Medical Assistant, Legal Secretary, Medical Transcriptionist, Medical Office Specialist, Office Specialist or ASAP (Accelerated Secretarial Advancement Program).

CHEF TRAINING

Faculty:

Scott Anselm

The Chef Training Program is an extensive "hands-on" and theory-based program preparing students for a career as a professional chef. In the two-year program, students gain skill in virtually all aspects of food preparation, including pantry, bakery, garde manger, grill, sandwich making, ala carte, quantity food, production, soups, sauces and meat preparation.

Students must be 18 years of age and have a high school diploma or a General Education Development (GED) certificate. Students should possess good basic math and reading skills. They should also be able to work under pressure and should demonstrate dexterity, physical stamina, concentration, good memory and have the ability to work cooperatively with others. In addition to regular college costs, students spend about \$350 to purchase uniforms, knives, shoes, books and other equipment. Students should wait until after the first day of class to purchase these items.

LBCC has an outstanding food service facility with a wide variety of modern equipment. The students become skilled at working with virtually all types of standard kitchen equipment and tools. The kitchen provides service for the cafeteria, catering functions, a snack bar and a working sit-down restaurant. By working in this excellent learning environment, students learn to care for and maintain a full-service kitchen.

Note: This program is being revised. Contact department for current information.

Associate of Applied Science in Culinary Arts with a Chef Training Option

General Ed. Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 76

Fall - First year

CA 8.310 Food Service Practicum I	5
CA 8.336 Food Service Safety & Sanitation Methods	1
CA 8.337 Station, Tools & Culinary Techniques ..	3
CA 8.345 Service Techniques	1
*CA 8.354 Banquet & Buffet Lab E	(1)
CA 8.373 Costings	1
CA 8.402 Baking Fundamentals	1
CA 8.404 Cheese, Eggs & Breakfast Cookery	1
CA 8.407 Pantry	1
CA 8.411 Vegetable Cookery	1

Winter

CA 8.311 Food Service Practicum II	6
CA 8.341 Soups & Sauces	2
CA 8.350 Banquet & Buffet Lab A	1
CA 8.405 Seafood & Poultry Cookery	1
CA 8.414 Garde Manger	1
CA 8.415 Adv. Baking & Pastry	2

(Continued on next page)

Spring

BA 160 Purchasing	3
CA 8.312 Food Service Practicum III	6
CA 8.351 Banquet & Buffet Lab B	2
CA 8.409 Meats & Meat Cookery	3
CA 8.419 Nutrition & Special Diets	1

Other Required Courses

BA 101 Intro to Business	4
HE 261 CPR	(1)

Fall - Second Year

CA 8.321 Adv. Cooking Management I	6
*CA 8.354 Banquet & Buffet Lab E	(1)
CA 8.368 Creating the Menu	1
CA 8.418 Beverage Operations & Services	2

Winter

CA 8.322 Adv. Cooking Management II	6
CA 8.352 Banquet & Buffet Lab C	1

Spring

CA 8.323 Adv. Cooking Management III	6
CA 8.353 Banquet & Buffet Lab D	2

Other Required Courses

BA 206 Principles of Management	3
*BA 285 Business Relations/Global Economy ..	(3)

* Optional.

* Applies toward General Ed. Requirements.
Credits not included in Major Requirements total.

CIVIL ENGINEERING TECHNOLOGY

Faculty:

Frank Christensen

The Civil Engineering Technology program at LBCC offers only first-year course work. Students enrolling in this two-year technical program should plan on completing the degree requirements at Chemeketa Community College in Salem. The first-year course work at LBCC offers technical-level courses in problem solving, computer programming skills, drafting, CADD, materials science and technical mathematics.

Civil Engineering technicians develop the technical skills allowing them to work with civil engineers in the planning, designing and construction of highways, bridges, dams, buildings, process facilities and other industrial structures. Tasks performed by Civil Engineering technicians include layout and detail drafting, specification writing, surveying, inspection, programming of computers and CADD systems, and supervision of other technicians.

Students expecting to graduate in two years should have a strong interest in design, mathematics, sciences and conceptualization. They should have sufficient mathematical and writing skills to enroll in MTH 111T College Algebra: Technical, MTH 159 Problem Solving and WR 121 English Composition. Upon entering the Civil Engineering Technology program, students are expected to achieve a minimum "C" grade in each required course. These courses are to be taken in the specified sequence. Students also should be prepared to purchase the basic drafting tools and equipment, at an approximate cost of \$150.

Classes are held in well-equipped classrooms and laboratories. Computer-aided drafting work stations equipped with modern, industry-level desktop computers are used in advanced courses. A computational center is also available with programmable calculators and microcomputers for student use.

The Civil Engineering Technology curriculum provides the first year of course work that leads to an Associate of Applied Science degree. An additional examination is required to become a Certified Engineering Technician.

Civil Engineering Technology (First-Year Course Work Only)

Fall - First Year

CEM 263 Plane Surveying	3
DR 4.128 Drafting Fundamentals	4
MTH 111T College Algebra: Technical	4
PH 4.310 Introductory Physics	3
WR 121 English Composition	3

Winter

BA 110H Using the PC: Hard Disk Management	1
BA 110O Using the PC:DOS	1
DR 4.131 Drafting I	4
DR 4.149 Applied Mechanics	3
MTH 112T Trigonometry: Technical	4
OA 121A Typing I: Keyboarding/Computers	2

Spring

BA 110S Using the PC: Spreadsheets	2
DR 6.223 C.A.D.D.	4
MTH 241T Elementary Calculus: Technical	4
WR 227 Technical Report Writing	3

Second Year

Consult an LBCC advisor for Chemeketa Community College requirements

COLLISION REPAIR TECHNOLOGY

Faculty:

Clifford Harrison

The Collision Repair program is designed to develop the skills and knowledge necessary in vehicle collision repair and refinishing. The program provides variable credit, hands-on instruction in an industry-type environment.

Block classes are held Monday through Thursday. Additional technical course work is scheduled on Friday.

Previous auto body repair experience may be accredited through a performance test and/or written test.

A variety of auto body hand tools are required for use in the courses offered. In addition to \$300 for books and supplies, students should expect to spend \$300 to \$600 for a personal set of tools.

The Collision Repair program supports student participation in Vocational Industrial Clubs of America (VICA) and student competition in the United States Skill Olympics (USSO). Through student involvement in fund-raising projects, funds are made available to pay students cost of travel, lodging and entry fees in the annual VICA state skills contest. Any student who earns a first place at state level also will have expenses paid to participate in the national competition.

The Collision Repair curriculum leads to a one-year certificate.

One-Year Certificate in Collision Repair Technology

Course sequence required for students beginning Fall Term

Major Requirements50

Fall - First Year

CR 3.511 Auto Collision Basics	12
MTH 20 Basic Math	4
WD 4.151 Welding I	2

Winter

CR 3.512 Auto Collision Procedures	12
HE 125 Occupational Safety	3
WD 4.152 Welding II	2

Spring

CR 3.513 Shop Procedures	12
WR 115 Intro to Writing	3

COMPUTER PROGRAMMING

See Business Computer Systems. Also see Computer Science in the College Transfer section.

CONFERENCE & RESORT MANAGEMENT

Faculty:

Scott Anselm

The Conference and Resort Management program prepares students for the "front of the house" duties in a resort setting, dealing with specific conferences, promotions and point-of-contact training. The first year covers basic kitchen technique to prepare the Conference and Resort major for supervisory duties involving the kitchen. Required Cooperative Work Experience in the second year provides on-the-job experience that prepares students in a real work environment while receiving college credit.

Students must be 18 years of age and have a high school diploma or a General Education Development (GED) certificate. Students should possess a strong understanding of business math, good communication skills and have a desire to work directly with customers and staff. The student should be able to work under pressure and should demonstrate dexterity, physical stamina, concentration, good memory and have a cheerful, friendly, outgoing personality. They must be prepared for a rigorous class schedule of business-related classes. Math and logic skills are a must. In addition to regular college costs, students spend about \$350 to purchase uniforms, books, knives, shoes and other equipment. Students should wait until after the first day of class to purchase these items.

LBCC has an outstanding food service facility with a wide variety of modern equipment. The students become skilled at working with virtually all types of standard kitchen equipment and tools. The kitchen provides service for the cafeteria, catering functions, a snack bar and a working sit-down restaurant. By working in this excellent learning environment, students learn to care for and maintain a full-service kitchen.

Note: This program is being revised. Contact department for current information.

Associate of Applied Science in Culinary Arts with a Conference & Resort Management Option

General Ed. Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 79

Fall - First year

CA 8.310 Food Service Practicum I	5
CA 8.336 Food Service Safety & Sanitation Methods	1
CA 8.337 Station, Tools & Culinary Techniques	3
CA 8.345 Service Techniques	1
*CA 8.354 Banquet & Buffet Lab E	(1)
CA 8.373 Costings	1
CA 8.402 Baking Fundamentals	1
CA 8.404 Cheese, Eggs & Breakfast Cookery	1
CA 8.407 Pantry	1
CA 8.411 Vegetable Cookery	1

Winter

CA 8.311 Food Service Practicum II	6
CA 8.341 Soups & Sauces	2
CA 8.350 Banquet & Buffet Lab A	1
CA 8.405 Seafood & Poultry Cookery	1
CA 8.414 Garde Manger	1
CA 8.415 Adv. Baking & Pastry	2

Spring

BA 160 Purchasing	3
CA 8.312 Food Service Practicum III	6
CA 8.351 Banquet & Buffet Lab B	2
CA 8.409 Meats & Meat Cookery	3
CA 8.419 Nutrition & Special Diets	1

Other Required Courses

BA 101 Intro to Business	4
HE 261 CPR	(1)

Fall - Second Year

*CA 8.354 Banquet & Buffet Lab E	(1)
CA 8.418 Beverage Operations & Services	2
CA 8.368 Creating The Menu	1
**WE 1.2807 CWE: Conference & Resort Mngmt. ..	3

Winter

CA 8.352 Banquet & Buffet Lab C	1
**WE 1.2807 CWE: Conference & Resort Mngmt. ..	4

Spring

CA 8.353 Banquet & Buffet Lab D	2
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Other Required Courses

BA 2.518 Commercial Law	3
BA 2.530 Practical Accounting I	4
BA 206 Principles of Management	3
BA 223 Principles of Marketing	4
BA 285 Business Relations/Global Economy ..	(3)

* Optional

** May be taken any term following completion of First-Year Requirements

Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

CRAFTS & TRADES

See Apprenticeship Program.

CRIMINAL JUSTICE

Faculty:

Jerald Phillips

The primary objective of the Criminal Justice program is to provide the student with a balanced inquiry into the complex process of administering justice in society. A secondary objective is to help the student prepare for entry into, and advancement within, a variety of public service careers in the criminal justice field.

Students who major in criminal justice are presented with an opportunity to attain a basic understanding of criminal behavior theory, of historical and current criminal justice processes, and of utilizing more efficiently and effectively those resources available to the criminal justice system.

Students are given the opportunity to earn credit through the Cooperative Work Experience program (CWE) by active participation in criminal justice agencies, including police departments and sheriff offices, probation and parole offices, jails and other correctional facilities, halfway houses and juvenile group homes.

Two degree programs are offered. Students may earn either the Associate of Science degree with a major emphasis in Criminal Justice or the Associate of Applied Science degree in Criminal Justice with concentrations available in either law enforcement or corrections. (Also see Transfer Programs.)

Associate of Applied Science in Criminal Justice

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Core Requirements 18

CJ 100 Survey of Criminal Justice Systems	3
CJ 110 Intro to Law Enforcement	3
CJ 120 Intro to Judicial Process	3
CJ 130 Intro to Corrections	3
CJ 220 Substantive Law	3
CJ 222 Procedural Law	3

Sequence Requirements (Select from the following two categories) 18

☐ Law Enforcement

CJ 101/SOC 244 Intro to Criminology	3
CJ 200 Police and Public Policy	3
CJ 201/SOC 221 Juvenile Delinquency	3
CJ 202/SOC 214 Violence and Aggression	3
CJ 210 Intro to Criminal Investigation	3
CJ 216 Criminal Justice Management	3
CJ 226/PS 252 Constitutional Law	3
*CJ 280 Cooperative Work Experience	3

*Note: 3 credits only may be applied to this requirement.

(Continued on next page)

Corrections

CJ 101/SOC 244 Intro to Criminology	3
CJ 132 Intro to Parole & Probation	3
CJ 201/SOC 221 Juvenile Delinquency	3
CJ 202/214 Violence and Aggression	3
CJ 226/PS 252 Constitutional Law	3
CJ 232 Corrections Casework	3
CJ 233 Community-Based Corrections	3
*CJ 280 Cooperative Work Experience	3

*Note: 3 credits only may be applied to this requirement.

Electives 36

Additional Criminal Justice courses, approved CWE and/or other elective courses that are appropriate to the study of criminal justice, i.e., social science, language, critical thinking courses, etc.

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CULINARY ARTS

See individual program listings under Chef Training, Conference & Resort Management and Restaurant & Catering Management.

DATA PROCESSING

See Business Computer Systems. Also see Computer Science in the College Transfer section.

DENTAL ASSISTANT

Faculty:

Cathy Delgado

The one-year Dental Assistant program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by The United States Department of Education.

The program prepares students for chairside assisting, office laboratory activities and receptionist procedures. Clinical experience is held in two fully equipped operatories in the on-campus Dental Clinic. Lab areas include 20 individual stations equipped with manikens and rotary handpieces to ensure quality "hands-on" experience. Three fully equipped x-ray rooms are available for radiological experience. Summer office practicums are held with cooperating dental offices throughout Linn and Benton counties.

This program accepts only one class of limited size each year, which begins in fall term. (See "Special Admissions Programs" in the "Entering the College" section of this catalog.)

Continuation in the program is contingent on satisfactory completion of all course work with

a minimum "C" grade in each required course, to be taken in the specified sequence.

Permission to continue in the Dental Assistant program with an incomplete in any required course will be considered on an individual basis. Students unable to meet the required competency level for the program may be advised of other alternatives to meet their goal. Petitions to complete the Dental Assistant program at a later time will be reviewed by the program coordinator and the Health Occupations Department chair.

The Dental Assistant curriculum leads to a one-year certificate. Graduating students are eligible for the state of Oregon Radiological Proficiency certificate and are awarded the state of Oregon Expanded Functions Dental Assistant (EFDA) certificate, after receiving their certificate in Radiology. Graduates also are eligible to take the national Certified Dental Assistant (CDA) examination, which is administered by the Dental Assisting National Board, Inc.

One-Year Certificate in Dental Assistant

Major Requirements 64

Fall

BI 4.220 Integrated Basic Science I	4
DA 5.461 Dental Radiology I	2
DA 5.491 Dental Office Records	1
DA 5.494 Clinical Practice I	4
DA 5.497 Dental Health Education I	1
DA 5.500 Oral Anatomy & Histology	2
OA 121A Typing I: Keyboarding/Computer	2
OA 201A Beginning WordPerfect	1

Winter

BI 4.221 Integrated Basic Science II	3
DA 5.462 Dental Radiology II	2
DA 5.484 Dental Materials I	3
DA 5.488 Expanded Duties I	2
DA 5.495 Clinical Practice II	4
DA 5.498 Dental Health Education II	1
HE 112 Emergency First Aid	1
SP 1.103 Occupational Speech	3

Spring

DA 5.453 Dental Pathology	2
DA 5.463 Dental Radiology III	1
DA 5.485 Dental Materials II	3
DA 5.489 Expanded Duties II	2
DA 5.492 Dental Office Emergencies	1
DA 5.496 Clinical Practice III	4
DA 5.499 Dental Health Education III	1
HE 261 CPR	1
PSY 101 Psychology & Human Relations	3

Summer

DA 5.510 Office Practicum	8
DA 5.515 Office Practicum Seminar	1

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Note: See next column for information on Pre-professional program.

Pre-professional Program

Linn-Benton Community College offers a pre-professional program in dental hygiene in preparation for transfer to the Oregon Institute of Technology Hygiene program. Students should take the following pre-dental hygiene courses to prepare for either OIT's associate or bachelor degree program.

BI 231, 232, 233 Human Anatomy & Physiology
CH 121, 122, 123 College Chemistry
MTH 95 Intermediate Algebra
PE 185 (2 terms) activity classes
PSY 201, 202, 203 General Psychology
WR 121, 122 English Composition

DRAFTING TECHNOLOGY

Faculty:

Frank Christensen

The two-year Drafting Technology program is a technical curriculum designed to assist students in acquiring basic attitudes, skills and knowledge necessary to successfully enter drafting occupations.

The first year of study provides a sound general background; the second year provides broader coverage of subject selection while permitting the student to work with such specialties as civil, mechanical, electronic, architectural and technical illustration.

Classes are held in well-equipped classrooms and laboratories. Computer-aided drafting work stations equipped with modern, industry-level desktop computers are used in advanced courses. A computational center also is available with programmable calculators and microcomputers for student use.

All entering drafting technology students planning to complete the program within a two-year period are advised, as a minimal requirement, to have a ninth-grade reading level and be prepared to register for MTH 97 Practical Geometry and MTH 159 Problem Solving.

Upon entering the Drafting Technology program, students are expected to achieve a minimum "C" grade in each required course. These courses are to be taken in the specified sequence.

Students new to the subject area should be prepared to purchase the basic tools of the profession at an approximate cost of \$150.

The Drafting Technology curriculum leads to an Associate of Applied Science degree.

(Continued on next page)

Associate of Applied Science in Drafting Technology

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 81

Fall - First Year

BA 110H Using the PC: Hard Disk Management	1
BA 110O Using the PC: DOS	1
DR 4.128 Drafting Fundamentals	4
MTH 97 Practical Geometry	4
MTH 159 Problem Solving	2
OA 121A Typing I: Keyboarding	2
•Perspectives	(3)

Winter

DR 4.131 Drafting I	4
EE 6.336 Technical Electricity I	3
MTH 111T College Algebra: Technical	4
•WR 121 English Composition	(3)
•Perspectives	(3)

Spring

DR 4.132 Drafting II	4
DR 4.133 Production Methods & Materials	4
DR 6.223 C.A.D.D.	4
MT 112T Trigonometry: Technical	4
WR 198 Independent Studies: Research Writing	1

Fall - Second Year

CEM 263 Plane Surveying	3
DR 4.117 Geometric Tolerancing	3
DR 4.141 Advanced Machine Drafting	3
DR 4.148 Practical Descriptive Geometry	3
PH 4.310 Introductory Physics	3
WR 227 Technical Report Writing	3

Winter

DR 4.140 Intro to Autolisp	4
DR 4.142 Advanced Architectural Detailing	3
DR 4.143 Electronic Drafting	3
DR 4.149 Applied Mechanics	3
DR 6.205 Civil Drafting I	3

Spring

DR 6.206 Civil Drafting II	3
DR 6.224 Drafting/Engineering Design	3
•SP 112 Fundamentals of Speech	(3)
•PE/Health	(3)
Tech Projects/CWE	3

100

• Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

ELECTRONICS ENGINEERING TECHNOLOGY

Faculty:

Kent Hansen, John Sweet, Dale Trautman

The Electronics Engineering Technology Department offers a two-year program that prepares students for occupations as electronics technicians or for further education. Course work is approximately half theoretical and half practical in content. Department courses and instructional techniques are continually reviewed to assure that both student and industry needs are met.

The department has two labs with a combined area of more than 4,200 square feet. The labs are equipped with industrial-quality instruments and work stations for the students. Department staff actively promote effective industrial relations and seek out prospective student employers. Former students have been employed by Tektronix, Intel, Applied Theory, Hewlett-Packard, White's Electronics, General Instruments, City of Corvallis, Micron Technology, Inc., GE Medical Systems and Oregon Digital.

Other options available include further education at the Oregon Institute of Technology. An agreement with OIT allows an electronics graduate to enter OIT and pursue either the bachelor of science in Electronic Engineering Technology (BSEET) or Industrial Management (BSIM). The BSEET program provides additional training for an engineering technologist-type assignment, and the BSIM program training prepares students for a middle management position in industry. Both of these degrees may be pursued at Klamath Falls or at the Portland satellite campus of OIT.

Students entering LBCC's EET program must be prepared to enroll in MTH 111T College Algebra: Technical in fall term of the first year. Students are expected to have 12th-grade reading and communication abilities and the motivation to become involved in an increasingly complex technical field. Students are expected to achieve a minimum "C" grade in each required sequential electronics course. The Electronics Engineering curriculum leads to an Associate of Applied Science degree.

Associate of Applied Science in Electronics Engineering Technology

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 94

Fall - First Year

EE 6.316 Intro to Electronics	1
EE 6.320 Fundamentals for Electronics	4
EE 6.343 Electronic Lab Skills I	1
•MTH 111T College Algebra: Technical	(4)
SS 1.150 Techniques of Studying	1

Winter

EE 6.321 DC/AC Circuit Analysis	8
MTH 112T College Trigonometry: Technical	4

Spring

CS 161 Intro to Computer Science I	4
EE 6.322 Basic Semiconductors	8
EE 6.344 Electronic Lab Skills II	1
MTH 241T Elementary Calculus: Technical	4

Fall - Second Year

EE 6.323 Analog Circuits	6
EE 6.346 Digital Circuits I	5
PH 201 General Physics	5
WR 1.112 Intro to Technical Writing	3

Winter

EE 6.324 Electronic Communications	6
EE 6.347 Digital Circuits II	5
PH 202 General Physics	5

Spring

EE 6.325 Integrated Systems	6
EE 6.338 Tech Electricity III	3
EE 6.349 Basic Microprocessors	5
PH 203 General Physics	5

109-113

• Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

EMERGENCY MEDICAL TECHNICIAN

Although the college has discontinued offering a Two-Year Certificate in Emergency Medical Technician (EMT), classes in Basic EMT and Intermediate EMT are offered. Successful completion of these classes will qualify students for state testing and certification.

FAMILY RESOURCES

The Department of Family Resources offers a number of professional technical courses for people who care for and work with children: parent education, balancing work and family, and child care provider training. Please see the "Family Resources Department" in the "Community Outreach" section of this catalog.

FARRIER SCIENCE

Faculty:

Larry Bewley

Dates for Farrier School terms are:

Fall Term 1993:	Sept. 13-Dec. 16*
Winter Term 1994:	Jan. 3-April 7*
Spring Term 1994:	April 18-July 21

The 14-week program provides comprehensive training in horseshoeing and basic forging. Training may be sought by those engaged in farming or related occupations or by those who wish to operate a part-time or full-time horseshoeing business. Advanced instruction is available for those who have received a certificate in Farrier Science.

The program is located in Manchester Arena on the Oregon State University campus. The Farrier Science program maintains an active association with Oregon State University Animal Science and Veterinary Medicine departments. Instruction is provided in one of the newest and best-equipped farrier training facilities in the western United States. Students also participate in field trips to shoe horses in realistic work settings. Class sessions last from 8 a.m. to 4 p.m. daily, Monday through Friday. Admission is on a first-come, first-served basis and early application is advised.

In addition to books and supplies, students should expect to spend about \$600 on a personal set of tools.

Two tuition grants of \$100 each are available each term for Farrier School students. Applicants who want to be considered for a grant should address a letter to the attention of: Associate Dean, Science and Industry Division and attach their admission application. Grants are awarded based on individual needs of students and are used to pay \$100 of their tuition.

*Depending on space availability, a limited number of new students may be accepted to the program during the mid-point of the fall and winter terms. Applicants for these dates should clearly state their request for a mid-term starting date on their admission application. Mid-point starting and ending dates are determined on an individual-term basis.

The Farrier Science curriculum leads to a certificate.

Certificate in Farrier Science

Major Requirements	23
BA 2.123 Entrepreneurship for the Farrier	1
FA 8.200 Farrier Science	22

GRAPHIC COMMUNICATIONS

Faculty:

John Aikman, Rich Bergeman, Doris Litzer, Judy Rogers, Jim Tolbert, Sandra S. Zimmer

The exciting field of Graphic Communications offers countless opportunities in graphic-related occupations in a wide variety of production environments.

As a result of the ever-increasing demand for communication materials in business and industry, skilled specialists who can produce these materials are in constant demand.

The Graphic Communications program is dedicated to training students for entry-level positions in printing, publishing and design. The program also is committed to assist in upgrading the skills of those already employed in the field.

The program emphasizes an integrated approach in which the Fine Arts and Graphic Arts faculty work as a team to ensure students are thoroughly skilled in all aspects of design and production. Students are immersed in both the creative demands of problem solving and the technical demands involved in producing a finished product, allowing them to graduate with an extensive, professional portfolio.

The curriculum is designed to provide learning experiences consistent with the needs of potential employers in the industry. The equipment available for student use is similar to that in the offices of printers, designers and the print media throughout the country.

Graphics students participate as photographers, designers and advertising and production staff on *The Commuter*, the student-run weekly newspaper for the campus. Projects in design and production provide opportunities for students to deal with clients and to accept responsibility for deadlines and quality control. Cooperative Work Experience (CWE) opportunities may offer on-the-job learning experiences.

Graphics facilities are well equipped and are handicapped accessible. They include a variety of classrooms, laboratories and studios serving the needs of graphics students. A completely equipped darkroom facility supports classes in photography.

Students in the program should anticipate expenses of \$300 per term during the first year and \$500 each term the second year for tools and materials.

Only those students who begin their program fall term may be assured of completing the program in two years. Students entering at other times may find it necessary to take more than six terms of classes to complete degree requirements.

The Graphic Communications curriculum leads to the Associate of Applied Science degree in Graphic Communications. (Also see Transfer Programs, Art).

Associate of Applied Science in Graphic Communications

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Program Requirements 85

Fall Term - First Year

ART 131 Drawing I	3
ART 204 Intro to Art History	3

Plus any 4 of these courses:

AA 120 Art & Copy Preparation	3
AA 224 Typographical Design I	3
AA 229 Electronic Imaging I	3
ART 115 Basic Design I: Composition	3
PHO 261 Intro to Photography	3

Winter

ART 116 Basic Design II: Color	3
ART 132 Drawing II	3
ART 205 Intro to Art History	3
■MTH 61 Survey of Math Fundamentals	(3)
■Science, Technology & Society	(3)
Winter term course still needed	3

Spring

AA 263 Reproduction Photography I	3
ART 133 Drawing III	3
■ART 206 Intro to Art History	(3)
GC 3.156 Electronic Imaging II	3
■Health and PE	(3)
■SP 112 Fundamentals of Speech	(3)

Fall Term - Second Year

AA 221 Graphic Design I	3
AA 226 Typographical Design II	3
AA 237 Illustration I	3
AA 264 Reproduction Photography II	3
JN 215B Journalism Production Lab	2

Winter

AA 222 Graphic Design II	3
AA 225 Packaging and 3-D Design	3
AA 238 Illustration II	3
ART 234 Figure Drawing	3
GC 3.169 Image Assembly & Platemaking	4
■MTH 64 Business Applications of Math Fundamentals	(1)

Spring

AA 223 Graphic Design III	3
AA 228 Portfolio Preparation & Prof. Practices	3
AA 239 Illustration III	3
GC 3.167 Offset Duplicator Operation	4
JN 225 Advertising & Public Relations	3
■WR 121 English Composition	(3)

HAZARDOUS MATERIALS MANAGEMENT

Faculty/Advisor:
David Kidd

The Hazardous Materials Management program at LBCC offers only first-year course work. Students enrolling in the program should plan to complete their degree at Mt. Hood Community College in Gresham. First-year course work includes the fundamentals of chemistry, communications, and health and safety.

The two-year program prepares students for employment and careers in the use, handling, storage, transportation, remediation, management and regulation of hazardous materials and waste. Employers that hire hazardous materials technicians and managers include government agencies, environmental engineering companies, manufacturing companies, waste handling companies, analytical laboratories and universities. People completing the Hazardous Materials Management program normally work as environmental technicians under the direction of an environmental or hazardous materials manager. Depending on the position, employment can be in the laboratory, office, factory, shop or field. The hazardous materials and waste industry is one of the most rapidly growing industries in the United States. Employment and advancement opportunities should continue to increase for some time.

Students in the Hazardous Materials Management program should have an aptitude for science and management. The advanced course work stresses environmental science and regulatory interpretation. Students who plan to complete the program in two years should have sufficient math skills to enroll in MTH 111 College Algebra and sufficient writing skills to enroll in WR 115 Introduction to Writing.

Hazardous Materials Management (First-Year Course Work Only)

Fall - First Year

BI 102 General Biology (Human Body option)	4
CH 121 College Chemistry	5
MTH 111T College Algebra: Technical	4
WR 115 Intro to Writing	3

Winter

CH 122 College Chemistry	5
MTH 112T Trigonometry: Technical	4
PE 231 Lifetime Wellness	3
PSY 101 Psychology and Human Relations	3
WR 121 English Composition	3

Spring

BI 103 General Biology (Ecology option)	4
CH 123 College Chemistry	5
HE 125 Occupational Safety	3
HM 6.136 Health & Environmental Effects	4
WR 227 Technical Report Writing	3

Second Year

Consult an LBCC advisor for Mt. Hood Community College requirements.

HEAVY EQUIPMENT MECHANICS/DIESEL

Faculty:

Mike Henich, Allan Jackson

The curriculum of the Heavy Equipment Mechanics/Diesel program is designed to give the student a balance of theory and practical experience gained by diagnosing, servicing, repairing and rebuilding components and live equipment.

Diesel mechanics repair and maintain diesel engines, which power railroad trains; ships; generators; and construction, highway and farm equipment. To become a diesel mechanic, a student should have a mechanical aptitude and a knack for shop work, mathematics and science. Being able to read with understanding also is essential because considerable time is spent in reading service manuals.

Students may be admitted to advanced standing upon confirmation of appropriate education or experience, which is evaluated through transcripts, work experience and competence examination. Permission of the division director is required to gain advanced standing.

The Heavy Equipment Mechanics/Diesel program supports student participation in Vocational Industrial Clubs of America (VICA) and student competition in the United States Skills Olympics (USSO). Through student involvement in fund-raising projects, funds are made available to pay students cost of travel, lodging and entry fees in the annual state skills contest. Any student who earns a first place at state level also will have expenses paid to participate in the national competition.

In addition to the usual books and supplies, students should expect to spend about \$550 for a personal set of diesel mechanic hand tools.

Upon completing the program, the student may gain employment in service departments of distributors and dealers that sell diesel-powered autos, trucks, and farm and construction equipment. Bus lines, railways, and truck and marine industries also employ diesel mechanics. Electric power plants, local industries, and both state and federal government have a great need for trained mechanics. Starting salaries range from \$1,300 to \$2,500 per month.

Mechanical Processes I, II and III are required courses for all Heavy Equipment Mechanics/Diesel majors and must be taken concurrently with their major field of study. Course content may be challenged for full or partial credit. Students also can improve their skills through laboratory experience in HV 3.131 Service and Repair Practices.

The Heavy Equipment Mechanics/Diesel curriculums lead to an Associate of Applied Science degree or a two-year certificate.

Associate of Applied Science in Heavy Equipment Mechanics/Diesel

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 81

Fall - First Year

HE 125 Occupational Safety	(3)
HV 3.295 Power Train Systems	10
*HV 3.307 Mechanical Processes I	2
WD 4.151 Welding I	2

Winter

HV 3.296 Suspension & Braking Systems	10
*HV 3.308 Mechanical Processes II	2
MTH 61 Survey of Math Fundamentals	(3)
MTH 64 Business Applications: Math Fundamentals	(1)
WD 4.152 Welding II	2
WR 121 English Composition	(3)

Spring

HV 3.131 HE Service & Repair Pract or CWE ...	1
HV 3.297 Electrical & Fuel Systems	10
*HV 3.309 Mechanical Processes III	2

Fall - Second Year

*HV 3.128 Fuel Injection Systems	10
*HV 3.132 Pneumatic Braking/Access Systems ..	2
*HV 3.134 Industrial Fluid Power	3

Winter

HV 3.129 HE/Diesel Engines	10
HV 3.131 HE Service & Repair Practices or CWE	1
*HV 3.303 Mobile A/C & Comfort Systems I	3
Cultural Diversity & Global Awareness	(3)

Spring

*HV 3.130 HE/Diesel Tune-Up	10
HV 3.131 HE Service & Repair Practices or CWE	1
*SP 1.103 Occupational Speech	(3)
Science, Technology & Society	(3)

* Courses marked with an asterisk are offered that term only.

Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

Two-Year Certificate in Heavy Equipment Mechanics/Diesel

Fall - First Year

HE 125 Occupational Safety	3
HV 3.295 Power Train Systems	10
*HV 3.307 Mechanical Processes I	2
WD 4.151 Welding I	2

Winter

HV 3.296 Suspension & Braking Systems	10
*HV 3.308 Mechanical Processes II	2
MTH 61 Survey of Math Fundamentals	3
MTH 64 Business Applications: Math Fundamentals	1
WD 4.152 Welding II	2

Spring

HE 261 CPR	1
HV 3.297 Electrical & Fuel Systems	10
*HV 3.309 Mechanical Processes III	2
WR 115 Intro to Writing	3

Fall - Second Year

HV 3.128 Fuel Injection Systems	10
*HV 3.132 Pneumatic Braking/Access Systems ..	2
*HV 3.134 Industrial Fluid Power	3

Winter

HV 3.129 HE/Diesel Engines	10
HV 3.131 Service & Repair Practices/CWE	1
*HV 3.303 Mobile A/C & Comfort Systems I	3

Spring

HE 112 Emergency First Aid	1
*HV 3.130 HE/Diesel Tune-Up	10
*SP 1.103 Occupational Speech	3

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HV 3.131 HE Service & Repair Practices is recommended every term.

*Courses marked with an asterisk are offered that term only

HORTICULTURE

Faculty:

Gregory Paulson

The Horticulture curriculums are based on necessary competencies identified by industry and reviewed by advisory committees. Students learn facts and skills necessary for entry-level technical employment.

Neither the certificate nor the Associate of Applied Science degree programs have official prerequisites. Students do take a variety of science-oriented courses, however, and are expected to have basic mathematical skills. In order to graduate with an AAS degree, each student needs to complete a four-credit algebra course while at LBCC.

All of the Horticulture program classes are offered during the day and part-time enrollment is common. Many students start in the middle of the academic year, but two full years are required to complete the AAS degree. If students attend part time, they will need to attend longer to complete the program. While not every course listed in the Horticulture program must be taken in the order shown in the curriculum, some courses are offered only every other year. Consequently, students need to take those particular courses in the order they are offered.

Instructional facilities, including a greenhouse, labs, vegetable and ornamental gardens, a land lab and the campus grounds, are used for demonstrations, skill building and evaluation.

The Horticulture curriculums lead to an Associate of Applied Science degree or a One-Year Certificate.

Associate of Applied Science in Horticulture

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree

Major Requirements 63

Fall - First Year

AG 8.125 Soils I	3
AG 8.165 Plant Science	4
AG 111 Computers in Agriculture	3
HT 8.140 Landscape Maintenance	3

Winter

AG 8.126 Soils II	3
AG 8.138 Irrigation Systems	3
HT 8.135 Turf Management I	3

Spring

CSS 105 Soils and Man	3
HT 8.136 Turf Management II	3
HT 8.168 Plant Identification	3

Fall - Second Year

AG 8.131 Pest Management	3
HT 8.169 Tree Identification	3
*Laboratory Science	4

Winter

AG 8.130 Agricultural Chemicals	4
HT 8.132 Arboriculture I	3
HT 8.141 Landscape Planning	3
*Laboratory Science	4

Spring

HE 252 First Aid	(3)
HE 261 CPR	1
HT 8.133 Arboriculture II	3
HT 8.137 Plant Propagation	4

Electives 12

Additional courses or approved CWE.
Recommended: Business, math, science, industrial, communication skills, drafting, graphics, Spanish.

* Biological or Physical Science.

* Applies toward General Ed. Requirements.
Credits not included in Major Requirements total.

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One-Year Certificate in Horticulture

Major Requirements 35

Fall

AG 8.125 Soils I	3
AG 8.165 Plant Science	4
AG 111 Computers in Agriculture	3
HT 8.140 Landscape Maintenance (offered alternate years) or	3
HT 8.169 Tree Identification (offered alternate years)	3

Winter

AG 8.126 Soils II	3
AG 8.138 Irrigation Systems	3
HT 8.132 Arboriculture I (offered alternate years) or	3
HT 8.135 Turf Management I (offered alternate years)	3

Spring

CSS 105 Soils and Man	3
HT 8.133 Arboriculture II (offered alternate years) or	3
HT 8.136 Turf Management II (offered alternate years)	3
HT 8.137 Plant Propagation	4
HT 8.168 Plant Identification	3

Math and writing courses at appropriate level (based on Placement Test scores) 7

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LEGAL SECRETARY

Program Advisor:

Illa Atwood

Graduates of the Legal Secretary program may expect to work for attorneys or large corporations that have legal departments. Course work emphasizes legal terminology; preparation of legal documents; and the development of good word processing, English and communication skills. As a part of the program, students work for 240 hours in a legal-related office. The Legal Secretary option represents exciting and challenging opportunities for secretaries. Students training in this field can easily enter other secretarial areas as well.

Skills classes are taught in self-paced laboratory classrooms. New technology is introduced both through concepts courses and through hands-on experience with microcomputers and word processing.

The Legal Secretary program is designed to be completed in two years. This assumes, however, that the entering student already knows how to type by touch and has been placed at or above the following levels on the college Placement Test: WR 115 Intro to Writing and MTH 60 Beginning Algebra. It is advisable to take the college Placement Test as early as possible. If developmental course work is required, we recommend that it be taken summer term prior to enrolling in the regular degree program. Pre-training might include some or all of the following courses: OA 121 Typing I: Keyboarding (2 credits), OA 123A Typing: Skill Building/

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Computers (2 credits), *RD 1.175 or RD 1.176 Reading Improvement I or II* (3 credits), *EN 1.126 or EN 1.130 Developmental English* (3 credits), *MTH 20 Basic Mathematics* (4 credits).

Students should work with an advisor to interpret the test scores and get help in planning their program.

Associate of Applied Science in Legal Secretary

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 79

Fall - First Year

BA 2.518 Commercial Law	3
OA 2.500B Business Orientation: Legal	1
OA 2.515 Business Math with Calculators	3
OA 122A Typing: Formatting	2
OA 201A Beginning WordPerfect	2
OA 124 Advanced WordPerfect	2
WR 121 English Composition	(3)

Winter

OA 2.551 Office Communications	3
OA 2.588 Editing Skills for Info Processing	3
OA 2.616 Job Success Skills I: Legal	1
OA 2.652 Filing	1
OA 2.675 Legal Terminology & Office Proced. I	3
OA 124 Typing: Speed & Accuracy Development	3
OA 202B WordPerfect for Windows	2

Spring

BA 2.530 Practical Accounting I	4
OA 2.527 Transcribing Machines I	3
OA 2.568 DOS and Windows for Beginners	2
OA 2.617 Job Success Skills II: Legal	1
OA 2.653 Automated Office Concepts	3
OA 2.676 Legal Terminology & Office Proced. II	3

Fall - Second Year

BA 2.684 Computerized Accounting: Payroll	3
MTH 61 Survey of Math Fundamentals	(3)
OA 2.557 Adv. Bus. Math Applications	(3)
OA 2.662 Legal Transcription	3
OA 2.677 Legal Terminology & Office Proced. III	3
OA 114 Alphabetic Shorthand	3

Winter

OA 2.613 On-the-Job Training	4
OA 2.656L Info Processing Practicum: Legal	3
OA 2.682 Desktop Publishing	3
OA 2.683 Computerized Records Management	3
OA 201B Microsoft Word With Windows	2
OA 214 Applied Alphabetic Shorthand	3

Spring

BA 285 Business Relations/Global Economy	(3)
OA 2.613 On-the-Job Training	4
PE 231 Lifetime Wellness	(3)
SP 111 Interpersonal Communications	(3)
Science, Technology & Society Elective	(3)

* HE 250, HE 252 and/or Multi-Media First Aid and/or PE Activity courses may be substituted for Lifetime Wellness.

* Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

MANUFACTURING TECHNOLOGY

Faculty:

Stephen Etringer, John Griffiths

The Manufacturing Technology curriculum is designed to develop skills in a wide variety of machining processes. These include the operation of the drill press, engine lathe, vertical and horizontal milling machine, C/N/C mills and lathes, surface and cylindrical grinders, tool and cutter grinders and other machines associated with the machinist's trade.

Students learn the basics of transforming raw material into finished parts. They study the principles of blueprint interpretation, material selection, operational sequence, machine operation, metal removal rates, deburring and final dimensional inspection.

Students work through a sequence of assignments ranging from simple exercises to complex assemblies. Hands-on experience, lecture and discussion, textbooks, manuals, audio-visual aids and field trips are employed throughout. The "people skills" in finding and keeping a job are emphasized continually.

The lab facilities and machine selection are designed to allow comprehensive instruction in the basic tools of the machinist's trade. Care has been taken to allot enough time in actual machine operation for the student to become competent. Students need not have their own tools to enter the program; however, they are urged to purchase tools before graduation and employment.

Prior machining experience for students entering the program is optional. It is recommended, however, that the student have mechanical interest or some demonstrated aptitude toward manipulative skills.

The Manufacturing Technology program supports student participation in Vocational Industrial Clubs of America (VICA) and the Society of Manufacturing Engineers (SME). These associations provide for professional development and skills competition.

The Manufacturing Technology curriculums lead to an Associate of Applied Science degree or a two-year certificate.

Associate of Applied Science in Manufacturing Technology

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 80

Fall - First Year

HE 125 Occupational Safety	(3)
MA 3.396 Operations & Processes I	3
MA 3.399 Precision Measurement	1
MA 3.417 Machining Graphics	2
MA 3.422 Manufacturing Lab I	5

Winter

MA 3.397 Operations & Processes II	2
MA 3.420 Numerical Control: Mill	3
MA 3.423 Manufacturing Lab II	5
MA 3.425 Machinery's Handbook I	2
ME 3.446 Metals Investigation & Evaluation	2
MTH 60 Beginning Algebra	4

Spring

MA 3.398 Operations & Processes III	2
MA 3.418 Geometric Controls	2
MA 3.421 Numerical Control: Lathe	3
MA 3.424 Manufacturing Lab III	5
MA 3.426 Machinery's Handbook II	2
MTH 61 Survey of Math Fundamentals	(3)
MTH 62 Occupational Trigonometry	(1)

Fall - Second Year

MA 3.406 Manufacturing Technology IV	9
MA 3.409 Computer Integrated Mfg. I	2
WD 4.151 Welding I	2
Cultural Diversity & Global Awareness	(3)

Winter

MA 3.407 Manufacturing Technology V	9
MA 3.410 Computer Integrated Mfg. II	2
WD 4.152 Welding II	2
Science, Technology & Society	(3)

Spring

MA 3.408 Manufacturing Technology VI	9
MA 3.411 Computer Integrated Mfg. III	2
SP 1.103 Occupational Speech	(3)
WR 121 English Composition	(3)

* Courses marked with an asterisk are offered that term only.

* Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

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Two-Year Certificate in Manufacturing Technology**Major Requirements 84****Fall-First Year**

HE 125 Occupational Safety	3
*MA 3.396 Operations & Processes I	3
*MA 3.399 Precision Measurement	1
*MA 3.417 Machining Graphics	2
MA 3.422 Manufacturing Lab I	5

Winter

*MA 3.397 Operations & Processes II	2
MA 3.423 Manufacturing Lab II	5
*MA 3.425 Machinery's Handbook I	2
ME 3.450 Computer Applications for Ind. Tech. .	1
*MTH 60 Beginning Algebra	4

Spring

*MA 3.398 Operations & Processes III	2
MA 3.424 Manufacturing Lab III	5
*MA 3.426 Machinery's Handbook II	2
MTH 61 Survey of Math Fundamentals	3
MTH 62 Occupational Trigonometry	1

Fall - Second Year

MA 3.400 Machine Tool Projects	3
MA 3.406 Manufacturing Technology IV	9
WD 4.151 Welding I	2

Winter

MA 3.407 Manufacturing Technology V	9
WD 4.152 Welding II	2
WR 115 Intro to Writing	3

Spring

MA 3.400 Machine Tool Projects	3
MA 3.408 Manufacturing Technology VI	9
*SP 1.103 Occupational Speech	3

* Courses marked with an asterisk are offered that term only.

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MEDICAL OFFICE SPECIALIST**Program Advisor:**

Mary Ann Lammers

The Medical Office Specialist is a one-year program preparing people for entry-level positions as records clerks, ward clerks or receptionists in medical offices. The course work lays the foundation for a two-year program for those students who want to continue their education.

Skills classes are taught in self-paced laboratory classrooms. New technology is introduced both through concepts courses and through hands-on experience with modern equipment.

The Medical Office Specialist program is designed to be completed in one year. This assumes, however, that the entering student already knows how to type by touch and has been placed at or above the following levels on the college Placement Test: WR 115 Intro to Writing and MTH 60 Beginning Algebra. It is advisable to take the college Placement Test as early as possible. If developmental course work is required, we recommend that it be taken summer term prior to enrolling in the regular certificate program. Pre-training might include some or all of the following courses: *OA 121 Typing I: Keyboarding* (2 credits), *OA 123A Typing: Skill Building/Computers* (2 credits), *RD 1.175 or RD 1.176 Reading Improvement I or II* (3 credits), *EN 1.126 or EN 1.130 Developmental English* (3 credits), *MTH 20 Basic Mathematics* (4 credits).

Students should work with an advisor to interpret the test scores and get help in planning their program.

One-Year Certificate in Medical Office Specialist**Major Requirements 47****Fall Term**

AH 5.630 Medical Terminology I	3
OA 2.500C Business Orientation: Medical	1
OA 2.515 Business Math with Calculators	2
OA 2.588 Editing Skills for Info. Processing	3
OA 122 Typing II: Formatting	2
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2

Winter

AH 5.633 Medical Terminology II	3
OA 2.527 Transcribing Machines I	3
OA 2.616 Job Success Skills I: Medical	1
OA 2.652 Filing	1
OA 2.656M Info. Proc. Practicum: Medical Reports	3
OA 2.671 Medical Law and Ethics	2
OA 2.672 Medical Coding Procedures	3

Spring

AH 5.634 Medical Terminology III	3
OA 2.524 Medical Transcription I	3
OA 2.544 Medical Insurance Procedures	3
OA 2.617 Job Success Skills II: Medical	1
OA 2.670 Medical Office Procedures	3
OA 2.673 Computerized Medical Accounts Receivable	3

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MEDICAL TRANSCRIPTIONIST**Program Advisor:**

Peggy Lind

The one-year Medical Transcriptionist program prepares people for entry-level positions in transcribing medical records at hospitals and clinics. Emphasis is placed on medical terminology, spelling, English, transcription and word processing skills. Job opportunities are good with pay being above average compared to other secretarial/clerical positions. Medical transcriptionists can easily work part time if they choose to do so.

Skills are taught in self-paced office laboratory classrooms. New technology is introduced both through concepts courses and through hands-on experience with modern equipment.

The Medical Transcriptionist program is designed to be completed in one year. This assumes, however, that the entering student already knows how to type by touch and has been placed at or above the following levels on the college Placement Test: WR 115 Intro to Writing and MTH 60 Beginning Algebra. It is advisable to take the college Placement Test as early as possible. If developmental course work is required, we recommend that it be taken summer term prior to enrolling in the regular certificate program. Pre-training might include some or all of the following courses: *OA 121 Typing I: Keyboarding* (2 credits), *OA 123A Typing: Skill Building/Computers* (2 credits), *RD 1.175 or RD 1.176 Reading Improvement I or II* (3 credits), *EN 1.126 or EN 1.130 Developmental English* (3 credits), *MTH 20 Basic Mathematics* (4 credits).

Students should work with an advisor to interpret the test scores and get help in planning their program.

One-Year Certificate in Medical Transcriptionist**Major Requirements 47****Fall**

AH 5.630 Medical Terminology I	3
OA 2.500 Business Orientation: Medical	1
OA 2.588 Editing Skills for Info. Processing	3
OA 122 Typing II: Formatting	2
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2
WR 1.131 Spelling (may be waived based on competency exam)	3

Winter

AH 5.633 Medical Terminology II	3
OA 2.515 Business Math with Calculators	1
OA 2.527 Transcribing Machines I	3
OA 2.616 Job Success Skills I: Medical	1
OA 2.656M Info. Processing Practicum: Medical Reports	3
OA 2.671 Medical Law and Ethics	2
OA 124 Typing: Speed & Accuracy Devel.	3

Spring

AH 5.634 Medical Terminology III	3
OA 2.529 Applied Medical Transcription	5
OA 2.617 Job Success Skills II: Medical	1
OA 2.672 Medical Coding Procedures	3
WR 115 Intro to Writing (may be waived based on competency exam)	3

METALLURGY TECHNOLOGY

Program Advisor:
Seaton McLennan

Faculty:
John France

The Metallurgy Technology program offers a two-year Associate of Applied Science degree that prepares men and women for a variety of entry-level positions involving industrial materials. Students have access to state-of-the-art equipment and instrumentation, such as real time data acquisition and statistical process control hardware and software and a full line of the latest non-destructive testing equipment.

A one-year certificate in Non-destructive Testing is offered in accordance with the American Society of Non-destructive Testing (ASNT) TC-1A. Preparatory course work for taking QC-I Inspection examination is included in this program.

Students may choose to emphasize their work at LBCC in occupations involving the extraction, purification, treatment, fabrication, examination and testing of materials; the evaluation of industrial processes; or quality control. Students completing prescribed courses may qualify for a certificate of completion according to the American Society of Non-destructive Testing standards. In addition to ASNT, a student may take the Engineering Council for Professional Development (ECPD) examination to obtain the Engineering Technician Certificate.

Students wanting to enter the Metallurgy Technology program should be aware of the variety of jobs available and the requirements necessary for the type of employment for which they intend to qualify. Students may need preparatory classes in math, chemistry and English in order to complete the level of classes required for graduation.

The job market for Metallurgy Technology graduates is excellent, especially for those willing to relocate. Past experience indicates that after hiring their first LBCC Metallurgy students, employers are seeking additional employees from the program. Recent metallurgy salaries range from \$15,000 to \$40,000 annually, with excellent benefits and educational opportunities.

Career choices include metallurgical technician, metallographer, materials testing technician, radiographer, ultrasonic testing technician, production control technician, quality control technician, forensic metallurgical technician, metrologist (calibration), spectroscopist (alloy analyst), dimensioning technician, heat treatment technician, penetrant testing technician, magnetic particle testing technician, and research and development.

The Metallurgy Technology program supports student participation in Vocational Industrial Clubs of America (VICA) and student competition in the United Skills Olympics (USSO). Through student involvement in fund-raising projects, funds are made available to pay student cost of travel, lodging and entry fees in the annual state VICA skills contest. Any student who earns a first place at the state level qualifies for USSO and also will have expenses paid to participate in the national competition.

Associate of Applied Science in Metallurgy Technology

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 72

Fall - First Year

DR 4.100 Basic Print Reading	2
GS 104 Physical Science	4
*ME 6.281 Magnetic Particle/Penetrant Testing: Level I & II	3
*ME 6.293 Intro to Metallurgy	4
WD 3.448 Welding Processes	2

Winter

*MTH 65 Elementary Algebra or	(4)
*MTH 61 + 62, 63, 64.....(4)+2	6
(four math credits apply toward general ed. requirements)	
*ME 3.445 Welding Metallurgy II	4
*ME 6.276 Physical Metallurgy	4
*ME 6.282 Ultrasonic/Electromagnetic Testing: Level I	3
*ME 6.298 Metallography I	3

Spring

*HE 125 Occupational Safety	(3)
*ME 4.120 Fund. of Specification	3
*ME 6.283 Radiographic Testing: Level I	3
*ME 6.299 Metallography II	3
*WR 121 English Composition	(3)

Fall - Second Year

*CH 4.205 Technical Chemistry	4
*ME 4.122 Strength of Materials	3
*ME 4.161 Materials Testing I	3
*Cultural Diversity & Global Awareness	(3)
IN 3.442G ITS or approved CWE	2

Winter

*MA 4.130 Machine Processes	2
*ME 4.162 Materials Testing II	3
*ME 6.285 Ultrasonic/Electromagnetic Testing: Level II	4
*Science, Technology & Society (applies toward general ed. requirements)	(3)

Spring

MA 3.418 Geometric Controls	2
*ME 4.163 Materials Testing III	3
*ME 6.284 Radiographic Testing: Level II	4
*ME 6.294 Process Metallurgy	4
*SP 1.103 Occupational Speech	(3)

* Applies toward General Ed. Requirements.
Credits not included in Major Requirements total.

One-Year Certificate in Non-destructive Testing

Major Requirements 41

Fall

DR 4.100 Basic Print Reading	2
HE 125 Occupational Safety	3
ME 6.281 Magnetic Particle/Penetrant Testing: Level I	3
ME 6.293 Intro to Metallurgy	4
WD 3.448 Welding Processes	2

Winter

BA 1100 Using the PC: DOS	1
BA 110S Using the PC: Spreadsheets	2
*ME 3.445 Welding Metallurgy II	4
*ME 6.282 Ultrasonic/Electromagnetic Testing: Level I	3
MTH 65 Elementary Algebra or	4
MTH 61 & MTH 62, 63, 64	6

Spring

MA 3.418 Geometric Controls	2
MA 4.130 Machine Processes	2
*ME 6.283 Radiographic Testing: Level I	3
*SP 1.103 Occupational Speech	3
*WD 4.251 Fundamentals of Welding Inspection	3

* Courses marked with an asterisk are offered that term only.

NON-DESTRUCTIVE TESTING

See Metallurgy Technology.

NURSING

Faculty:

Jacqueline Paulson, Vicki Beck, Evon Bergstrom, Rachel Hagfeldt, Judy Kraft, Taffy Johnson, Katie Swett

The Associate Degree Nursing program is approved by the Oregon State Board of Nursing and fully accredited by the National League for Nursing. This two-year program is open to both men and women and is designed to prepare highly skilled bedside nurses (RN) oriented to patient care. Clinical facilities are the hospitals, nursing homes and health agencies in Linn and Benton counties and the state hospital in Salem.

Following acceptance into the nursing program (See "Admission to Health Occupations Programs" in the "Entering the College" section of this catalog), the student must achieve a minimum C grade in each required course to be taken in the specified sequence. Permission to continue in the nursing program with an incomplete in any required course will be considered on an individual basis.

Proficiency in math and chemistry is required for admission to the ADN program. Students with a deficiency will be required to complete CH 112 Chemistry for Health Occupations and MTH 65 Elementary Algebra as program prerequisites.

The student is graded in all aspects of the program, including clinical practices. Evening clinicals may be required. The student is expected to participate on a daily basis; absence is made up through agreement with the instructor.

All nursing courses are to be completed at Linn-Benton Community College unless special permission for transfer credit is granted. Related courses may be taken prior to or concurrent with enrollment in the nursing program.

Students unable to meet the required competency level for the program may be advised of other alternatives to meet their goals. Petitions to complete the nursing program at a later time will be reviewed by the program coordinator and the health occupations director.

The Associate Degree Nursing curriculum leads to an Associate of Applied Science degree. Graduates are eligible to take the National Council Licensing Examination for Registered Nurse licensing (NCLEX-RN).

The Oregon State Board of Nursing reviews applicants for RN licensure upon completion of LBCC's nursing program and is responsible for ensuring that approved applicants meet certain criteria regarding issues of substance abuse and some felony convictions. Specific questions regarding these issues should be directed to 10445 SW Canyon Rd. #200, Beaverton, Oregon 97005, (503) 644-2767.

Associate of Applied Science in Nursing

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree

MTH 65 Elementary Algebra is required. SP 111 Interpersonal Communication is required.

Major Requirements 83

Fall - First Year

BI 231 Human Anatomy & Physiology	4
HDFS 201 Individual & Family Development or	
HEC 201 Individual & Family Development or	
PSY 215 Intro to Developmental Psychology	3
NUR 101 Nursing I	6
NUR 121 Drug Administration	2

Winter

BI 232 Human Anatomy & Physiology	4
BI 234 Microbiology	4
NUR 102 Nursing II	8
PSY 201 General Psychology	3

Spring

BI 233 Human Anatomy & Physiology	4
FN 225 Nutrition	4
NUR 103 Nursing III	9
NUR 122 Contemporary Nursing I	1

Fall - Second Year

NUR 201 Nursing IV	10
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Winter

NUR 202 Nursing V	10
NUR 222 Contemporary Nursing II	1

Spring

NUR 203 Nursing VI	10
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NURSING ASSISTANT

Faculty:

Missy Dutson

The Nursing Assistant program is a 120-hour course of study that prepares students for positions as nursing assistants in nursing homes. Graduates often use this program as a starting point toward related health careers. Through classroom lecture and clinical experience under the supervision of a professional nurse, students gain the background needed to care for the convalescent patient or long-term care patient.

Students interested in applying for this program should contact the Health Occupations Office at 967-6107. Instructor permission is required for entry into this program.

Following completion of the program, the student is eligible for certification through the Oregon State Board of Nursing.

* Nursing Assistant

Major Requirements 7

NU 5.406 Nursing Assistant	7
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7

* Prerequisites: Reading test; measles and Hepatitis B immunization.

OFFICE SPECIALIST

Program Advisor:

Sally Stouder

Job opportunities are excellent for well-trained secretaries. The Office Specialist is a one-year program providing students the opportunity to acquire skills for entry-level positions, such as general clerk, file clerk, receptionist, typist, transcriptionist and word processor. Opportunities for advancement are available with experience and proven aptitude.

The Office Specialist certificate is designed to be completed in one year. This assumes, however, that the entering student already knows how to type by touch and has been placed at or above the following levels on the college Placement Test: WR 115 Intro to Writing and MTH 60 Beginning Algebra. It is advisable to take the college Placement Test as early as possible. If developmental course work is required, we recommend that it be taken summer term prior to enrolling in the regular certificate program. Pre-office specialist training might include some or all of the following courses: • OA 121A Typing I: Keyboarding (2 credits), • OA 123A Typing: Skill Building/Computers (2 credits), • RD 1.175 or RD 1.176 Reading Improvement I or II (3 credits), • EN 1.126 or EN 1.130 Developmental English (3 credits), • MTH 20 Basic Mathematics (4 credits).

Students should work with an advisor to interpret the test scores and get help in planning their program.

One-Year Certificate in Office Specialist

Major Requirements 45

Fall

OA 2.500 Business Orientation	1
OA 2.515 Business Math with Calculators	3
OA 2.588 Editing Skills for Info. Processing	3
OA 2.652 Filing	1
OA 201A Beginning WordPerfect	2
OA 202A Advanced WordPerfect	2

☐ Typing Option

(Select one)

OA 123B Adv. Typing: Skill Building/Computers2	
OA 124 Typing: Speed & Accuracy Dev.	3

Winter

BA 110D Using the PC: Data Bases	2
OA 2.513 Data Entry Skill Building	2
OA 2.568 DOS & Windows for Beginners	1
OA 2.616 Job Success Skills I	1
OA 122 Typing II: Formatting	2
OA 202B WordPerfect with Windows	2
Approved electives (see list below)	4-6

(Continued on next page)

Spring

BA 110S Using the PC: Spreadsheets	2
OA 2.551 Office Communications	3
OA 2.579 Integrated Software Applications	2
OA 2.610 Office Procedures	3
OA 2.617 Job Success Skills II	1
Approved electives (see list below)	4-6

Approved Electives:

(Select 9 credits)

BA 2.530 Practical Accounting I	4
BA 2.684 Computerized Accounting: Payroll	3
BA 110H Using the PC: Hard Disk Management	1
OA 2.527 Transcribing Machines I	3
OA 2.682 Desktop Publishing	3
OA 114 Alphabetic Shorthand	3
OA 201B MicroSoft Word with Windows	2
OA 203 Word Processing Practicum	3

OFFICE TECHNOLOGY

See Business Technology

PARENT EDUCATION, WORK & FAMILY AND CHILD CARE PROVIDER TRAINING

The Department of Family Resources offers a number of professional-technical programs for people who care for and work with children: parent education, balancing work and family, and child care provider training. Please see the "Family Resources Department" in the "Community Outreach" section of this catalog.

REFRIGERATION, HEATING AND AIR CONDITIONING

Faculty:

Jack Campbell, Peter Martens

The Refrigeration, Heating and Air Conditioning program is designed to help students acquire mechanical skills necessary to install, maintain and repair refrigeration, heating, air conditioning and solar equipment and accessory units common in residences and business.

Working on refrigeration, heating and air conditioning systems requires a high degree of skill and precision. Success requires good work and safety habits, sound judgment, and the ability to plan ahead and work cooperatively with other skilled craftsmen.

Entering students should have good math and reading skills or be prepared to improve them

during the first terms of the program. Courses relating to the program include math, electricity, welding and sheet metal. Students learn to read, interpret and work from sketches, layouts and blueprints; develop knowledge of standard practices, methods, tools and materials of the trade; analyze machine operation and diagnose faulty performance; and develop skills in making replacements or repairs.

A variety of tools and specialized instruments are required. In addition to the usual books and supplies, students should expect to spend about \$500 over the two-year period for a personal set of tools.

Job prospects in this field are good. Beginning pay ranges from \$6 to \$10 per hour. Qualified workers may advance to positions as supervisors, with pay ranging from \$15 to \$24 per hour.

The Refrigeration/Heating/Air Conditioning program supports student participation in Vocational Industrial Clubs of American (VICA) and student competition in United States Skills Olympics (USSO). Through student involvement in fund-raising projects, funds are made available to pay student cost of travel, lodging and entry fees in the annual state VICA skills contest. Any student who earns a first place at the state level qualifies for USSO and also will have expenses paid to participate in the national competition.

The Refrigeration, Heating and Air Conditioning curriculums lead to an Associate of Applied Science degree or a one-year or two-year certificate.

Associate of Applied Science in Refrigeration, Heating and Air Conditioning

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 75

Fall - First Year

HE 125 Occupational Safety	(3)
MTH 60 Beginning Algebra	4
*RH 3.552 Trade & Electrical Components I	3
*RH 3.580 Intro to Ref/Heat/AC	6

Winter

*RH 3.553 Trade & Electrical Components II	3
*RH 3.583 Principles of Refrigeration	6
*RH 3.584 Sheet Metal Basics	4
*SP 1.103 Occupational Speech	(3)

Spring

*RH 3.542 RHAC Graphics	2
*RH 3.585 Principles of Heating	6
*RH 3.586 Mechanical Installation Procedures	4
WD 4.151 Welding I	2

Fall - Second Year

*RH 3.527 Alternate Energy Sources	3
*RH 3.588 Pneumatic Controls	4
*RH 3.589 Diagnosis, Service & Repair	6
*Science, Technology & Society	(3)

Winter

*MTH 61 Survey of Math Fundamentals	(3)
*RH 3.587 Operation Principles of AC and Air Movement	6
*RH 3.590 Control Applications	4
*WR 121 English Composition	(3)

Spring

*MTH 62 Occupational Trigonometry	(1)
*RH 3.591 Commercial & Industrial Refrig.	6
*RH 3.592 Systems Design	4
*Cultural Diversity & Global Awareness	(3)

Technical Electives 2

96

* Courses marked with an asterisk are offered that term only.

* Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

Two-Year Certificate in Refrigeration/Heating/Air Conditioning

Major Requirements 84

Fall First Year

HE 125 Occupational Safety	3
MTH 60 Beginning Algebra	4
*RH 3.552 Trade & Electrical Components I	3
*RH 3.580 Intro to Ref/Heat/AC	6

Winter

*RH 3.553 Trade & Electrical Components II	3
*RH 3.583 Principles of Refrigeration	6
*RH 3.584 Sheet Metal Basics	4
SP 1.103 Occupational Speech	3

Spring

*RH 3.542 RHAC Graphics	2
*RH 3.585 Principles of Heating	6
*RH 3.586 Mechanical Installation Procedures	4
WD 4.151 Welding I	2

Fall Second Year

RH 3.588 Pneumatic Controls	4
RH 3.589 Diagnosis, Service & Repair	6
WR 121 English Composition	3

Winter

MTH 61 Survey of Math Fundamentals	3
*RH 3.587 Operational Principles of AC & Air ..	6
*RH 3.590 Control Applications	4

Spring

MTH 62 Occupational Trigonometry	1
*RH 3.591 Commercial & Industrial Refrig.	6
*RH 3.592 Systems Design	4
RH 3.594 RHAC Skills Lab	1

84

* Courses marked with an asterisk are offered that term only.

(Continued on next page)

One-Year Certificate in Heating

Major Requirements 46

Fall

HE 125 Occupational Safety	3
MTH 60 Beginning Algebra	4
*RH 3.552 Trade & Electrical Components I	3
*RH 3.580 Intro to Ref/Heat/AC	6

Winter

*RH 3.553 Trade & Electrical Components II	3
*RH 3.583 Principles of Refrigeration	6
*RH 3.584 Sheet Metal Basics	4
SP 1.103 Occupational Speech	3

Spring

*RH 3.542 RHAC Graphics	2
*RH 3.585 Principles of Heating	6
*RH 3.586 Mechanical Installation Procedures	4
WD 4.151 Welding I	2

* Courses marked with an asterisk are offered that term only.

RESTAURANT & CATERING MANAGEMENT

Faculty:

Scott Anselm

The Restaurant and Catering Management program is an in-depth, hands-on program especially tailored to the student who wants to manage a restaurant or catering operation. The curriculum is demanding in the basic cooking techniques as well as in the fundamentals of money, personnel and facilities management.

Students must be 18 years of age and have a high school diploma or General Education Development (GED) certificate. Students should possess a strong understanding of business math, good communication skills and have a desire to work directly with customers and staff. Students should be able to work under pressure and should demonstrate manual dexterity, physical stamina, concentration, good memory and have a cheerful, friendly, out-going personality. In addition to the regular college costs, students spend about \$350 to purchase uniforms, knives, books, shoes and other equipment. Students should wait until after the first day of class to purchase these items.

LBCC has an outstanding food service facility with a wide variety of modern equipment. The students become skilled at working with virtually all types of standard kitchen equipment and tools. The kitchen provides service for the cafeteria, catering functions, a snack bar and a working sit-down restaurant. By working in this excellent learning environment, students learn to care for and maintain a full-service kitchen.

Note: This program is being revised. Contact department for current information.

Associate of Applied Science in Culinary Arts with a Restaurant & Catering Management Option

General Ed. Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 85

Fall - First year

CA 8.310 Food Service Practicum I	5
CA 8.336 Food Service Safety & Sanitation Methods	1
CA 8.337 Station, Tools & Culinary Techniques	3
CA 8.345 Service Techniques	1
*CA 8.354 Banquet & Buffet Lab E	(1)
CA 8.373 Costings	1
CA 8.402 Baking Fundamentals	1
CA 8.404 Cheese, Eggs & Breakfast Cookery	1
CA 8.407 Pantry	1
CA 8.411 Vegetable Cookery	1

Winter

CA 8.311 Food Service Practicum II	6
CA 8.341 Soups & Sauces	2
CA 8.350 Banquet & Buffet Lab A	1
CA 8.405 Seafood & Poultry Cookery	1
CA 8.414 Garde Manger	1
CA 8.415 Adv. Baking & Pastry	2

Spring

BA 160 Purchasing	3
CA 8.312 Food Service Practicum III	6
CA 8.351 Banquet & Buffet Lab B	2
CA 8.409 Meats & Meat Cookery	3
CA 8.419 Nutrition & Special Diets	1

Other Required Courses

BA 101 Intro to Business	4
*HE 261 CPR	(1)

Fall - Second Year

CA 8.321 Adv. Cooking Management	6
*CA 8.354 Banquet & Buffet Lab E	(1)
CA 8.368 Creating The Menu	1
CA 8.418 Beverage Operations & Services	2

Winter

CA 8.322 Adv. Cooking Management II	6
CA 8.352 Banquet & Buffet Lab C	1

Spring

CA 8.353 Banquet & Buffet Lab D	2
**WE 1.280 CWE: Management Projects	6

Other Required Courses

BA 206 Principles of Management	3
*BA 285 Business Relations/Global Economy	(3)
BA 2.530 Practical Accounting I	4
BA 223 Principles of Marketing	4

* Optional

**May be taken any term following completion of First-Year Requirements.

* Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

SUPERVISORY MANAGEMENT

Faculty:

Maynard Chambers, Gerry Conner, Wendy Krislen, Larry Schuetz, Andy VanderPlaat, Al Walczak

This program is designed to meet the needs of individuals currently supervising or preparing to supervise personnel in a wide variety of business or industry settings. In order to accommodate individuals working full time, the program allows completion of course work during the evening hours.

Three curriculum options are available. Students may complete an 18-credit program in supervision, a 45-credit program in advanced supervisory development or a 90-credit program in supervision leading to an associate degree. Students are encouraged to first complete the 18- and 45-credit programs before completing the Associate degree program.

The Supervision curriculums lead to an Associate of Applied Science degree in Supervisory Management or a certificate in Basic Supervisory Management or Advanced Supervisory Management.

Associate of Applied Science in Supervisory Management

General Education Requirements 19

See graduation requirements for Associate of Applied Science degree.

Major Requirements 46

BA 2.530 Practical Accounting I	4
BA 2.531 Practical Accounting II	4
BA 1100 Using the PC: DOS	1
BA 110S Using the PC: Spreadsheets	2
BA 171 Intro to Business Computer Systems	4
BA 207 Labor Management Relations	3
BA 230 Business Law	4
*BA 285 Business Relations/Global Economy	(3)
EC 115 Outline of Economics	4
*HE 125 Occupational Safety	(3)
*HST 150 Science/Culture in West. Trad.	(3)
*MTH 65 Elementary Algebra	(4)
OA 201A Beginning WordPerfect	2
SD 101 Supervision: Fundamentals	3
SD 102 Supervision: Techniques	3
SD 103 Supervision: Communication	3
SD 104 Supervision: Applied Communication	3
SD 215 Survey of Accounting	3
SD 216 Financial Analysis for Managers	3
*SP 112 Fundamentals of Speech	(3)
*WR 121 English Composition	(3)

Electives 27

* Other courses may satisfy requirement.

* Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

(Continued on next page)

Basic Supervisory Management

Major Requirements 15

HE 125 Occupational Safety	3
SD 101 Supervision: Fundamentals	3
SD 102 Supervision: Techniques	3
SD 103 Supervision: Communication	3
SD 215 Survey of Accounting	3

Electives 3

Select from the following:

BA 1100 Using the PC: DOS	1
BA 110S Using the PC: Spreadsheets	2
BA 171 Intro to Business Computer Systems	4
OA 201A Beginning WordPerfect	2
SD 104 Supervision: Applied Communication	3
Approved CWE and/or credit from prior work experience	

18

Certificate in Advanced Supervisory Management

Major Requirements 35

BA 1100 Using the PC: DOS	1
BA 110S Using the PC: Spreadsheets	2
BA 207 Labor Management Relations	3
BA 285 Business Relations/Global Economy	3
HE 125 Occupational Safety	3
OA 201A Beginning WordPerfect	2
SD 101 Supervision: Fundamentals	3
SD 102 Supervision: Techniques	3
SD 103 Supervision: Communication	3
SD 104 Supervision: Applied Communications	3
SD 215 Survey of Accounting	3
SD 216 Financial Analysis for Managers	3
WR 121 English Composition	3

Electives 10

Additional business courses

Approved CWE and/or credit from prior work experience.

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WATER/WASTEWATER TECHNOLOGY

Faculty:

John W. Carnegie, Holly Mason-Ploetz,
David Kidd, Ronald M. Sharman

Water/Wastewater Technology offers two programs: a one-year Water/Wastewater Plant Operations program and a two-year Water/Wastewater Technology program. Both programs cover all phases of water and wastewater plant operations, wastewater collection systems, water distribution systems and maintenance of related equipment.

Classes are held in modern, well-equipped classrooms and laboratories. Modern chemistry and microbiological laboratory equipment, such as spectrophotometers and microscopes are available. A complete mechanical laboratory is available for instruction on various aspects of pump maintenance. Microcomputers are available for student use.

The two-year (seven-term) Water/Wastewater Technology program prepares its graduates to work at the technician level in either the water or wastewater treatment fields. The course work develops graduates qualified as plant operators, engineering technicians and technical representatives for various manufacturing concerns. A firm foundation in chemistry and microbiology laboratory procedures and fluid hydraulics is provided, as well as specialized courses in maintenance and advanced operations.

The Water/Wastewater Technology curriculum requires enrollment for seven consecutive terms. Due to the technical nature of the field, students must be prepared to enroll in MTH 111T College Algebra: Technical during winter term of their sophomore year. The one-year Water/Wastewater Plant Operations program prepares students for employment as water or wastewater treatment plant operators. A firm background is provided in chemistry and microbiology laboratory procedures required for plant operations. Students are required to complete MTH 65 Elementary Algebra.

The one-year Water/Wastewater Plant Operations curriculum requires enrollment for four consecutive terms. Students completing the one-year program may choose to transfer credits to the two-year Associate of Applied Science degree program.

Students in both the one-year certificate program and the two-year associate degree program must complete an in-plant practicum during the summer term. This may require relocation of the student for one term. There is no guarantee of funding for students during this period. Entering students must be prepared to enroll in MTH 65 Elementary Algebra and WR 115 Introduction to Writing by fall term of their first year.

The Water/Wastewater Technology curriculums lead to an Associate of Applied Science degree or a one-year certificate.

Associate of Applied Science in Water/Wastewater Technology

General Education Requirements 19

See Graduation requirements for Associate of Applied Science degree.

Major Requirements 85

Fall - First Year

WW 6.190 Intro to Environ. Science & Tech.	5
WW 6.193 Intro to Aquatic Chem & Micro	4
WW 6.199 Intro to Hydraulics	2

Winter

DR 4.100 Basic Print Reading	2
WW 6.180 W/WW Mechanics I	2
WW 6.192 Wastewater Systems	7
WW 6.194 Basic Aquatic Chem & Micro	4

Spring

HE 112 First Aid	(1)
WW 6.181 W/WW Mechanics II	2
WW 6.191 Water Systems Operation	7
WW 6.195 Intermediate Aquatic Chem & Micro	4

Summer

WW 6.168 In-Plant Practicum	12
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Fall - Second Year

EE 6.330 Industrial Electricity	3
MTH 111T College Algebra: Technical	(4)
PE	(1)
WR 121 English Composition	(3)
WW 6.154 Process Control I	4
WW 6.164 Water Sources	3

Winter

PE	(1)
Science, Technology & Society	(3)
WR 1.112 Intro to Technical Writing	3
WW 6.155 Process Control II	4
WW 6.166 Water Purification	4
WW 6.235 Applied Hydraulics	3

Spring

Cultural Diversity	(3)
Speech	(3)
WW 6.165 Water Distribution & Collect. Sys	3
WW 6.197 Solids Handling	3
WW 6.198 Instrumentation	4

104

Applies toward General Ed. Requirements. Credits not included in Major Requirements total.

One-year Certificate in Water/Wastewater Plant Operations

Major Requirements 59

Fall

MTH 65 Elementary Algebra	4
WR 115 Intro to Writing	3
WW 6.190 Intro to Environ. Science & Tech	5
WW 6.193 Intro to Aquatic Chem & Micro	4
WW 6.199 Intro to Hydraulics	2

Winter

DR 4.100 Blueprint Reading	2
WW 6.180 W/WW Mechanics I	2
WW 6.192 Wastewater Systems	7
WW 6.194 Basic Aquatic Chem & Micro	4

Spring

HE 112 Emergency First Aid	1
WW 6.181 W/WW Mechanics II	2
WW 6.191 Water Systems Operations	7
WW 6.195 Intermediate Aquatic Chem & Micro	4

Summer

WW 6.168 In-Plant Practicum	12
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WELDING TECHNOLOGY

Faculty:

John Alvin, Dennis Wood

The Welding Department offers several options to men and women wanting to prepare for entry-level positions in welding repair and fabrication. A one-year certificate of completion provides extensive training in welding procedures, blueprint reading, fabrication and layout.

Students who complete the one-year certificate and are interested in becoming an Industrial Maintenance Mechanic should contact a program advisor for a list of the required courses, which usually take an additional academic year to complete. Additional general education courses can be completed to qualify for an Associate of General Studies degree/technology option.

The welding shop is a large, modern facility with well-maintained, up-to-date equipment. Twenty-two oxyacetylene stations, 22 manual stick electrode stations, four MIG and four TIG stations are available. Other equipment includes plasma arc, CNC controlled flame cutting, template cutting, shearing, bending, drilling and hoisting equipment. A classroom is conveniently located next to the shop, and audio-visual materials are available for student use.

Students who desire to transfer to Oregon State University or Oregon Institute of Technology should consult with a Welding Department advisor for a recommended schedule of classes.

The Welding Technology program supports student participation in Vocational Industrial Clubs of America (VICA) and student competition in United States Skills Olympics (USSO). Through student involvement in fund-raising projects, funds are made available to pay student cost of travel, lodging and entry fees in the annual state skills contest. Any student who earns a first place at state level also will have expenses paid to participate in the national competition.

People already employed in the welding field or a related area may upgrade their skills by enrolling in the classes offered through the Welding Department. Welding I, II and Preparation for Certification offer a student limited exposure to welding techniques but provide the opportunity for students to be certified in pipe or plate welding. Testing is done by an independent agency in the Welding Lab at LBCC.

Students wanting to enter the welding program should have a basic math background and high school level reading skills. Because a variety of working conditions exist in the welding field, students should be in good physical condition and be able to stand, stoop, kneel and bend. Good eyesight, especially depth perception, is necessary for a welder.

Personal qualities desirable in a welder include preciseness and creativity. As with most career fields, the ability to get along well with others is a valuable asset. The program requires students to take initiative in working on class projects independently.

The job outlook for welding is excellent, both locally and regionally. Wages vary greatly between union and non-union shops. A variety of local machine shops, repair shops and industrial firms hire welders. Some students use the welding program as a basis for applying to apprenticeship programs, such as Millwright, Pipefitter, Steamfitter, Iron Workers and other related trades.

Welding is a rewarding career for people who enjoy working with their mind and their hands. The beginning wage is good, opportunities for advancement exist with on-the-job training, and the welder experiences a pride of workmanship in this industrial field.

For more information, please contact John Alvin or Dennis Wood at 967-8845.

One-Year Certificate in Welding

Major Requirements 49

Fall

MTH 60 Beginning Algebra	4
*WD 4.240 Basic Arc Welding	6
*WD 4.242 Fab. & Repair Practices I	4
*WD 4.258 Welding Prints & Projects	2

Winter

*WD 4.241 Intermediate Arc Welding	6
*WD 4.243 Fab. & Repair Practices II	4
*WD 4.247 Interp. Metal Fab Drawings	3
WR 115 Intro to Writing	3

Spring

*ME 3.444 Welding Metallurgy I	4
*WD 4.245 Layout Procedures for Welding	3
*WD 4.246 Advanced Arc Welding	6
*WD 4.250 Fab. & Repair Practices III	4

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* Courses marked with an asterisk are offered that term only.



TRANSFER PROGRAMS

- Agricultural Education
- Agriculture Business Management
- Animal Science
- Anthropology
- Art
- Biological Sciences
- Business Administration
- Computer Science
- Criminal Justice
- Economics
- Education (Pre-)
- Engineering Transfer
- English/Foreign Languages
- Geography
- History
- Home Economics
- Humanities
- Journalism & Mass Communications
- Liberal Studies
- Mathematics
- Music
- Philosophy
- Physical Education & Health
- Physical Sciences
- Political Science
- Psychology
- Religion
- Social Sciences
- Sociology
- Spanish
- Speech
- Theatre/Speech



AGRICULTURAL EDUCATION

Faculty:

Rick Klampe, Jim Lucas, Bruce Moos

Curriculum completion initiates the first step of meeting lower-division requirements for those students interested in pursuing a career in teaching. Also available are lower-division transfer courses in a variety of agricultural areas that will provide practical background and experiences for anyone entering the field of education.

Associate of Science with a major emphasis in Agricultural Education

General Education Requirements 24

See the graduation requirements for Associate of Science degree.

The math, biological science and eight of the perspectives credits are met by the listed major requirements.

Major Requirements 60

Fall - First Year

AG 111 Computers in Agriculture	3
BI 101 General Biology	4
MTH 105 Intro to Contemporary Math	4

Winter

ARE 221 Marketing in Agriculture	3
BI 102 General Biology	4

Spring

ANS 231 Livestock Evaluation	3
BI 103 General Biology	4
CCS 200 Principles of Crop Science	4

Fall - Second Year

ARE 211 Management in Agriculture	4
CH 121 College Chemistry	5

Winter

CH 122 College Chemistry	5
EC 213 Principles of Economics	4

Spring

BA 230 Business Law	4
CH 123 College Chemistry	5
EC 214 Principles of Economics	4

Electives 12

Approved electives include:

ANS 121 Animal Science	4
ANS 210 Feeds and Feed Processing	4
ANS 211 Applied Animal Nutrition	3
ANS 220A Applied Beef Production	4
ANS 220D Applied Sheep Production	4
ANS 220E Applied Swine Production	4
ANS 221 Introductory Horse Science	4
BI 251 Principles of Wildlife Conservation	3
BI 252 Wildlife Resources: Birds	3

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AGRICULTURE BUSINESS MANAGEMENT

Faculty:

Rick Klampe, Jim Lucas, Bruce Moos

The Agriculture Business Management curriculum is designed for students who want to complete their lower-division course work prior to transferring to a four-year institution. It allows for completion of general education requirements as well as the preparatory course work that precedes specialized course involvement. Agriculture Resource Economics interests also could be pursued.

Associate of Science with a major emphasis in Agriculture Business Management

General Education Requirements 24

See graduation requirements for Associate of Science degree.

The math, biological science and eight of the perspectives credits are met by the listed major requirements.

Major Requirements 57

Fall - First Year

AG 111 Computers in Agriculture	3
CH 121 College Chemistry	5
MTH 111 College Algebra	4

Winter

ARE 221 Marketing in Agriculture	3
CH 122 College Chemistry	5
MTH 241 Math for Bus., Mgmt. & Soc. Science	4

Spring

Agric. Science Elective	4
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Fall - Second Year

ARE 211 Management in Agriculture	4
BA 211 Principles of Accounting I	3
BI 101 General Biology	4

Winter

BA 212 Principles of Accounting II	3
EC 213 Principles of Economics	4

Spring

BA 213 Principles of Accounting III	3
BA 230 Business Law	4
EC 214 Principles of Economics	4

Electives 13

Additional courses in Animal Science, Crop Science, Fish and Wildlife.

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ANIMAL SCIENCE

Faculty:

Rick Klampe, Jim Lucas, Bruce Moos

All of the lower-division transfer courses that a potential transfer student in Animal Science needs are available at LBCC. These courses provide the proper background for those wanting to further their educational goals. Valuable practical instruction assists students in meeting their objectives.

Associate of Science in Animal Science

General Education Requirements 24

See graduation requires for Associate of Science degree.

The math, biological science and eight of the perspectives credits are met by the listed major requirements.

Major Requirements 67

Fall - First Year

AG 111 Computers in Agriculture	3
ANS 121 Animal Science	4
CH 121 College Chemistry	5
MTH 111 College Algebra	4

Winter

ARE 221 Marketing in Agriculture	3
CH 122 College Chemistry	5

Spring

ANS 231 Livestock Evaluation	3
CH 123 College Chemistry	5
CSS 200 Principles of Crop Science	4

Fall - Second Year

ARE 211 Management in Agriculture	4
BI 101 General Biology	4

Winter

ANS 210 Feeds and Feed Processing	4
BI 102 General Biology	4
EC 213 Principles of Economics	4

Spring

ANS 211 Applied Animal Nutrition	3
BI 103 General Biology	4
EC 214 Principles of Economics	4

Electives 3

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ANTHROPOLOGY

See Social Sciences

ART

Faculty:

Doris Litzer, Judy Rogers, Sandra S. Zimmer

The Fine Art curriculum has three instructional objectives: to enhance students' sensitivity to their visual surroundings; to increase their ability to recognize historic influences in their own and others' works; and to develop skills that will enable them to express ideas through art.

Studio classes provide experience in drawing, painting, composition and color. Lecture courses in art history and art appreciation give added breadth to the studio experience.

The Fine and Applied Arts Department has well-equipped and appointed studios to support instruction in design, drawing and painting. Additionally, the department operates a gallery for the exhibit of both student and professional art work. Facilities are handicapped accessible.

The department offers coursework leading to an Associate of Science degree with a major emphasis in Fine Art. This degree is designed for students seeking transfer as art majors. Students also may earn an Associate of Science degree with a major emphasis in Humanities and a Fine Art concentration. (See Humanities.)

Associate of Science with a major emphasis in Fine Art

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Major Requirements 18-27

ART 115 Basic Design I: Composition	3
ART 116 Basic Design II: Color	3
ART 131 Drawing I	3
ART 132 Drawing II	3
ART 133 Drawing III	3
*ART 204, 205, 206 Intro to Art History	(9)
ART 234 Figure Drawing	3

Selectives 12

(Select four courses):

ART 181 Intro to Painting	3
ART 184 Beginning Watercolor	3
ART 186 Watercolor: Landscape	3
ART 281 Painting	3
ART 282 Painting: Portraiture	3
ART 284 Watercolor: Abstraction	3

**Electives 5-14

* Courses may apply to Western Culture and Literature and the Arts Distribution Requirements.

** Additional courses in fine art, photography and graphic design recommended.

BIOLOGICAL SCIENCES

Faculty:

Susie Kelly, Stephen Lebsack, Carolyn Lebsack, Richard Liebaert, Robert Ross

In addition to offering the Associate of Science with a major emphasis in Biological Science degree, the Biology Department provides a variety of courses to meet the needs and interests of at least four groups of students: (1) Transfer students in majors other than science who take General Biology courses to meet their perspectives or science requirement for an Associate of Arts, Associate of Science or a Bachelor's degree. (2) Students who require specific biology courses in order to earn a degree or certificate. Students in the Associate Degree Nursing program, Dental Assisting program and agriculture programs are required to take such courses as Human Anatomy and Physiology, Integrated Basic Science, Nutrition or Microbiology. (3) Science majors in fields such as forestry, fisheries and wildlife, agriculture or premedicine, who complete their first two years at LBCC and then transfer to a four-year institution. These students enroll in required courses such as General Biology, Forestry courses, or Wildlife Conservation. (4) Students who have an avocational interest in biology and take courses such as Natural History and Nature Photography.

In biology courses, students learn to understand life processes, the diversity of life and the role and responsibility of humans in the natural environment. Most courses are laboratory- or field-oriented.

Students utilize well-equipped labs with computers, microscopes, and living and preserved specimens. Field trips occasionally are conducted in association with classes. A greenhouse, environmental chambers and other support-service facilities allow a broad range of laboratory exercises.

The Associate of Science Degree with a major emphasis in Biological Science is a lower division transfer program designed to assist students planning to complete their baccalaureate studies in a biological science at any four-year institution. The program is primarily designed, however, for those students intending to transfer to Oregon State University. Baccalaureate degrees may be earned in any of the following areas: Biology, Microbiology, Botany, Entomology, General Science or Zoology. Students completing the degree requirements will be prepared to enroll in upper division course work.

Associate of Science with a major emphasis in Biological Science

General Education Requirements 30

See graduation requirements for Associate of Science degree.

The mathematics, biological science and physical science requirements are met by the listed major requirements.

Major Requirements 59-62

Fall - First Year

CH 121 College Chemistry or	5
CH 221 General Chemistry	4
MTH 111 College Algebra	4

Winter

CH 122 College Chemistry or	5
CH 222 General Chemistry	4
MTH 112 Trigonometry	4

Spring

CH 123 College Chemistry or	5
CH 223 General Chemistry	4
MTH 113 Analytical Geometry	4

Fall - Second Year

BI 201 General Biology	5
CH 241 Organic Chemistry	4
MTH 251 Calculus	4

Winter

BI 202 General Biology	5
CH 242 Organic Chemistry	4
MTH 252 Calculus	4

Spring

BI 203 General Biology	5
CH 243 Organic Chemistry	4

Electives 9

BI 231, 232, 233 Human Anat. & Physiology	4
BI 234, 235, 236 Microbiology	4
BI 251 Principles of Wildlife Conservation	3
BI 252 Wildlife Resources: Birds	3
GS 108 Oceanography	4
PH 201, 202, 203 General Physics	5
PH 211, 212, 213 General Physics/Calculus	5

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BUSINESS ADMINISTRATION

(Oregon Transfer)

Program Advisors:

Gerry Conner, Al Walczak

Faculty:

Maynard Chambers, Wendy Krislen,
Larry Schuetz, Andy VanderPlaat

This two-year program is recommended to prepare students for transfer into any of the major programs in Business Administration offered by any four-year college or university in Oregon. Students may complete requirements for the baccalaureate degree with two additional years of work. Students planning to transfer to any other four-year institution should contact the transfer curriculum advisor before enrolling in any courses.

The Business Administration curriculum leads to an Associate of Arts degree with an emphasis in Business Administration.

Associate of Arts with an emphasis in Business Administration

All General Education Requirements are included below.

Fall - First Year

BA 101 Intro to Business	4
+ENG 104 Intro to Literature: Fiction	3
+HUM 100 Intro to Humanities	3
MTH 111 College Algebra	4
WR 121 English Composition	3

Winter

+ART 102 Understanding Art	3
BA 171 Intro to Business Computer Systems	4
+ENG 105 Intro to Literature: Drama	3
MTH 241 Math for Biological, Mgmt., Soc. Science	4
WR 122 English Composition	3

Spring

BA 206 Principles of Management	3
BA 230 Business Law	4
+ENG 106 Intro to Literature: Poetry	3
MTH 245 Math for Biological, Mgmt., Soc. Science	4
WR 214 Business English	3

Fall - Second year

BA 211 Principles of Accounting I	3
+BI 101 General Biology	4
EC 201 Principles of Economics I	3
+PE 231 Lifetime Wellness	3
SP 112 Fundamentals of Speech	3

Winter

BA 212 Principles of Accounting II	3
BA 275 Business Quantitative Methods	4
+BI 102 General Biology	4
EC 202 Principles of Economics II	3
+PHL 202 Elementary Ethics	3

Spring

BA 213 Principles of Accounting III	3
BA 278 Intro to Management Science	4
+BI 103 General Biology	4
EC 203 Principles of Economics III	3
+PSY 216 Social Psychology	3

+ Other classes may substitute. See Advisor.

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BUSINESS ADMINISTRATION

Program Advisors:

Gerry Conner, Al Walczak

Faculty:

Maynard Chambers, Wendy Krislen,
Larry Schuetz, Andy VanderPlaat

This two-year program is designed for students who plan on transferring to Oregon State University to complete a baccalaureate degree in business administration. It is important that students check with the business transfer curriculum advisor before enrolling in these classes.

The Business Administration curriculum leads to an Associate of Science with an emphasis in Business Administration.

Associate of Science with an emphasis in Business Administration

All General Education Requirements are included below.

Fall - First Year

BA 101 Intro to Business	4
+BI 101 General Biology	4
MTH 111 College Algebra	4
WR 121 English Composition	3

Winter

BA 171 Intro to Business Computer Systems	4
+BI 102 General Biology	4
MTH 241 Math for Biological, Mgmt., Soc. Science	4
PE 231 Lifetime Wellness	3

Spring

Cultural Diversity	3
+GS 106 Physical Science or	
GS 107 Astronomy	4
MTH 245 Math for Biological, Mgmt., Soc. Science	4
SP 112 Fundamentals of Speech	3
WR 214 Business English	3

Fall - Second year

BA 211 Principles of Accounting I	3
BA 223 Principles of Marketing	4
BA 230 Business Law	4
EC 201 Principles of Economics I	3
Literature & the Arts	3

Winter

BA 206 Principles of Management	3
BA 212 Principles of Accounting II	3
BA 275 Business Quantitative Methods	4
EC 202 Principles of Economics II	3
+EC 215 Economic Devel. in the US	3

Spring

BA 213 Principles of Accounting III	3
BA 278 Intro to Management Science	4
EC 203 Principles of Economics III	3
One additional course in literature, western culture or cultural diversity	3

Electives 3

+ Other classes may substitute. See Advisor.

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COMPUTER SCIENCE

Program Advisor:

Peggy Weems

Faculty:

Gladys Norman, Peggy Weems, Kitson Yu

Computer Science is the study of programming, data storage and retrieval, and computing machinery and how they interact with people. Graphics, artificial intelligence, robotics and expert systems are some of the products of computer science. It is exciting to be involved in a career that affects so many aspects of our lives.

The Computer Science program at LBCC provides students with the first two years of a four-year degree program. Upon successful completion of these requirements, the student receives an Associate of Science degree with a major emphasis in Computer Science. Students enrolling in this program should have a strong aptitude for mathematics and the logic of problem solving.

Computer Science students need to decide where they will complete their four-year degree so that appropriate courses can be selected at Linn-Benton.

Associate of Science with a major emphasis in Computer Science

All General Education Requirements are included below.

Fall - First Year

BA 171 Intro to Business Computer Systems	4
MTH 251 Calculus	4
WR 121 English Composition	3
Cultural Diversity	3

Winter

CS 161 Intro to Computer Science I	4
MTH 252 Calculus	4
WR 122 English Composition	3
Literature & the Arts	3

Spring

CS 162 Intro to Computer Science II	4
MTH 253 Calculus	4
PE 231 Lifetime Wellness	3
WR 227 Technical Report Writing	3
Social Processes & Institutions	3

(Continued on next page)

TRANSFER PROGRAMS

Fall - Second Year	
PH 211 General Physics/Calculus	5
Selective (see list below)	3-4
Western Culture	3
*Elective	4

Winter	
CS 251 Computer Organization & Assembly	4
Language Programming	4
PH 212 General Physics/Calculus	5
SP 112 Fundamentals of Speech	3
Additional course in Cultural Diversity, Literature & the Arts, Social Processes & Institutions or Western Culture	3

Spring	
CS 261 Data Structures	4
MTH 231 Elements of Discrete Mathematics	4
PH 213 General Physics/Calculus	5
Additional course in Cultural Diversity, Literature & the Arts, Social Processes & Institutions or Western Culture	3

Selective	
(Select one)	
CS 217 Intro to COBOL Programming	4
CS 233C Adv. COBOL Programming	4
CS 275 Data Base Systems: SQL & Oracle	4
CS 279 Network Management (Novell)	3

* Biological Science for OSU or a course approved by the four-year institution to which student will transfer. See program advisor.

CRIMINAL JUSTICE

Faculty:
Jerald Phillips

The primary objective of the Criminal Justice program is to provide the student with a balanced inquiry into the complex process of administering justice in society. A secondary objective is to help the student prepare for entry into, and advancement within, a variety of public service careers in the criminal justice field.

Students who major in criminal justice are presented with an opportunity to attain a basic understanding of criminal behavior theory, of historical and current criminal justice processes, and of utilizing more efficiently and effectively those resources available to the criminal justice system.

Students are given the opportunity to earn credit through the Cooperative Work Experience program (CWE) by active participation in criminal justice agencies, including police departments and sheriff offices, probation and parole offices, jails and other correctional facilities, halfway houses and juvenile group homes.

Two degree programs are offered. Students may earn either the Associate of Science degree with a major emphasis in Criminal Justice or the Associate of Applied Science degree in Criminal Justice with concentrations available in either law enforcement or corrections. (Also see Professional-Technical Programs.)

Associate of Science with a major emphasis in Criminal Justice

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Core Requirements 18

CJ 100 Survey of Criminal Justice Systems	3
CJ 110 Intro to Law Enforcement	3
CJ 120 Intro to Judicial Process	3
CJ 130 Intro to Corrections	3
CJ 220 Intro to Substantive Law	3
CJ 222 Procedural Law	3

Sequence Requirements (select from the following list) 18

CJ 101/SOC 244 Intro to Criminology	3
CJ 132 Intro to Parole and Probation	3
CJ 200 Police and Public Policy	3
CJ 201/SOC 221 Juvenile Delinquency	3
CJ 202/SOC 214 Violence & Aggression	3
CJ 210 Intro to Criminal Investigation	3
CJ 216 Criminal Justice Management	3
CJ 226/PS 252 Constitutional Law	3
CJ 232 Corrections Casework	3
CJ 233 Community-Based Corrections	3
CJ 280 Cooperative Work Experience *	3

*Note: 3 credits only may be applied to this requirement.

Electives 9

Additional Criminal Justice courses, approved CWE and/or other elective courses that are appropriate to the study of Criminal Justice, i.e., social science, language, critical thinking courses, etc.

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ECONOMICS

(Oregon Transfer Degree)

Program Advisors:

Gerry Conner, Al Walczak

Faculty:

Maynard Chambers, Wendy Krislen,
Larry Schuetz, Andy VanderPlaat

This two-year program is recommended to prepare students for transfer into any of the major programs in Economics offered by any four-year college or university in Oregon. Students may complete requirements for the baccalaureate degree with two additional years of work. Students planning to transfer to any other four-year institution should contact the transfer curriculum advisor before enrolling in any courses.

Associate of Arts with an emphasis in Economics

All general education requirements are included below.

Fall - First Year

+ENG 104 Intro to Literature: Fiction	3
MTH 111 College Algebra	4
+PE 231 Lifetime Wellness	3
WR 121 English Composition	3
Elective	3

Winter

+ART 102 Understanding Art	3
BA 171 Intro to Business Computer Systems	4
+ENG 105 Intro to Literature: Drama	3
MTH 241 Math for Biological, Mngmt & Soc. Science	4
WR 122 English Composition	3

Spring

EC 115 Outline of Economics	4
+ENG 106 Intro to Literature: Poetry	3
+HUM 100 Intro to Humanities	3
MTH 245 Math for Biological, Mngmt & Soc. Science	4
WR 123 English Composition	3

Fall - Second Year

+BI 101 General Biology	4
EC 201 Principles of Economics I	3
EC 216 Intro to Labor Economics	3
+PHL 202 Elementary Ethics	3
SP 112 Fundamentals of Speech	3

Winter

+BI 102 General Biology	4
EC 202 Principles of Economics II	3
EC 215 Economic Development of the U.S.	3
Electives	6

Spring

+BI 103 General Biology	4
EC 203 Principles of Economics III	3
EC 220 Contemporary U.S. Econ. Issues	3
+PSY 216 Social Psychology	3
Elective	3

+ Other classes may substitute. See advisor.

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EDUCATION

Faculty Advisors:

Beth Camp, Beth Hogeland, Jorry Rolfe,
Bobbie Weber, Carolyn Wright

Education programs leading to certification by the state of Oregon are available only at four-year colleges and universities. As of Winter Term 1992, state system schools offering undergraduate programs in education, undergraduate preparation for graduate programs in education and MAT (Masters of Arts in Teaching) or other fifth-year graduate programs are:

Oregon State University offers undergraduate preparation for the professional MAT (fifth-year) program and has reinstated the four-year baccalaureate degree in Technology Education; Eastern Oregon State College offers a multi-disciplinary studies baccalaureate program and a variety of graduate programs; Portland State University offers a Master's in Education; Southern Oregon State College offers a baccalaureate program plus one graduate year for basic certification; the University of Oregon offers a baccalaureate program plus one graduate year for basic certification; Western Oregon State College offers the B.A., B.S., and M.S. in Education and an M.A. in Teaching.

It is very important that pre-education students contact the college or university to which they intend to transfer as early as possible in order to receive specific guidance.

In all cases, admission into professional education programs at four-year colleges and universities is selective and highly competitive. Applicants typically must have higher-than-average grades, passing scores on the CBEST (California Basic Education Skills Test) and/or the National Teacher's Exam, and verified success in working with children. Admission to graduate (fifth-year) programs in education requires a baccalaureate degree in a content area; admission to undergraduate programs requires significant lower-division course work as well as some upper-division course work as a prerequisite to application.

During the freshman and sophomore years, students planning to become teachers should focus on completion of general education requirements and on the selection of an academic major or specialty area. Pre-secondary education students should work with advisors in their majors in planning their programs. Pre-elementary education students should work with the advisors shown above or with the Counseling Office.

The pre-elementary and pre-secondary Associate of Science degree curriculums at LBCC parallel the Liberal Arts Core recommended for education students at Western Oregon State College. Additional prerequisites, including some upper-division courses, still will need to be met before students may qualify for admission to WOSC's Teacher Education Professional Core. These curriculums also fulfill the Baccalaureate Core requirements at Oregon State University. OSU recommends that students seeking admission to the

MAT in Elementary Education (graduate) program pursue undergraduate degrees in home economics, liberal arts or science.

Elementary Education

Students wanting to teach in elementary, middle or junior high schools from pre-primary through ninth grade should follow the program outlined for the Associate of Arts degree or the Associate of Science degree with a major emphasis in pre-elementary education. Associate of Arts degree students are strongly advised to include MTH 211, MTH 212 and MTH 213 and HDFS 225 or PSY 235 in their studies and to consult an advisor before selecting other courses to fulfill general education requirements.

Associate of Science with a major emphasis in Pre-elementary Education

General Education Requirements 46

(Select the following courses)

Skills

Writing I	
WR 121 English Composition	3
Writing II	
WR 122 English Composition	3
Speech	
SP 112 Fundamentals of Speech	3
Mathematics	
*MTH 211 Fundamentals of Math	4
Fitness	
PE 231 Lifetime Wellness	3

Perspectives

Biological Science	
BI 101 General Biology	4
Physical Science	
GS 104 Physical Science	4
GS 106 Physical Science	4
Western Culture	
HST 201, 202 U.S. History	6
Cultural Diversity	
R 103 Religion of Eastern World	3
Literature and Arts	
ART 102 Understanding Art	3
Social Processes/Institutions	
PSY 201, 202 General Psychology	6

Program Requirements 38

ENG 104, 105, 106 Intro to Literature or	
ENG 107, 108, 109 Lit. of Western World	9
HDFS 225 Child Development or	3
HST 203 U.S. History	3
PSY 235 Human Development: Child or	3
PSY 203 General Psychology	3
MTH 212, 213 Fundamentals of Math	8
MUS 101 Music Fundamentals	3
**PE 185 Activity	3
TA 111 Introduction to Theatre	3
WR 123 English Composition	3

Area of Concentration/Electives 6

Geography recommended

* MTH 95 Intermediate Algebra is a prerequisite for MTH 211.

** Select three different areas from individual sports, team sports, rhythms or aquatics.

Secondary Education

Students wanting to teach in departmentalized schools from grades 5 through 12 may pursue either the Associate of Arts or the Associate of Science degree.

Associate of Science degree students may follow either the curriculum outlined below or any of the following degree programs in content area:

Agricultural Education
Biology
Fine Art
Physical Education and Health
Humanities
Laboratory Science
Mathematics
Social Science
Theatre

Students who plan to delay a major emphasis choice or who want to focus on meeting all or most general education requirements for the baccalaureate degree during their freshman and sophomore years should follow the degree program outlined for the Associate of Arts.

Associate of Science with a major emphasis in Pre-secondary Education

General Education Requirements 46

(Select the following courses)

Skills 16

Writing I	
WR 121 English Composition	3
Writing II	
WR 122 English Composition	3
Speech	
SP 112 Fundamentals of Speech	3
Mathematics	
MTH 105 Intro to Contemporary Mathematics or	
MTH 111 College Algebra	4
Fitness	
PE 231 Lifetime Wellness	3

Perspectives 30

Biological/Physical Sciences	
(Must include two courses of a three-term sequence and one course in each of the two areas)	12
Social Processes/Institutions	
PSY 201 General Psychology	3
Literature and Arts	
ENG 104, 105 Intro to Lit. or	
ENG 107, 108 Lit. of Western World	6
Cultural Diversity	
R 103 Religions of Eastern World	3
Western Culture	
HST 101, 102 Western Civ. or	
HST 201, 202 History of the U.S.	6

Program Requirements 27

Art course	3
(select from)	
ART 102 Understanding Art	
ART 115 Basic Design I: Composition	
ART 131 Drawing I	
ART 204, 205, 206 Intro to Art History	
Complete the History sequence	
(See Perspectives)	3
Complete the Literature sequence	
(See Perspectives)	3
Music course	3
(Select from)	
MUS 101 Music Fundamentals	
MUS 161 Music Appreciation	
**PE 185 Activity	3
Additional Social Science course	3
Theatre course	3
(Select from)	
TA 111 Intro to Theatre	
TA 185/285 Production Workshop	
TA 229 Oral Interpretation of Literature	
TA 270 Stage Make-up	
WR 123 English Composition	3

Area of Concentration/Electives 17

** Select three different areas from individual sports, team sports, rhythms or aquatics.

ENGINEERING TRANSFER

Advisor:
John Sweet

The Engineering Transfer program provides a balanced pre-engineering curriculum to prepare students for transfer to a four-year program at the professional level. At the same time, the program offers an Associate of Science degree with a major emphasis in Pre-engineering. The curriculum for this degree program features a broad base of pre-engineering courses, a solid foundation in mathematics and the physical sciences and core requirements in general education. The curriculum meets the requirements for admission to the professional programs at most Oregon institutions.

Students entering the program with solid high school backgrounds in physics, chemistry and pre-calculus mathematics can expect to complete the program in two years. Students who need to pick up any pre-calculus mathematics after their arrival on campus should expect to spend more than two years in the program.

Associate of Science with a major emphasis in Engineering Transfer

General Education Requirements 46

See the graduation requirements for the Associate of Science degree.

Major Requirements 56*

Fall - First Year

CH 221 General Chemistry 4
ENGR 111 Engineering Orientation I 4
MTH 251 Calculus 4

Winter

CH 222 General Chemistry 4
ENGR 112 Engineering Orientation II 4
MTH 252 Calculus 4

Spring

MTH 253 Calculus 4

Fall - Second Year

ENGR 201 Electrical Fundamentals 4
ENGR 211 Statics 4
MTH 254 Calculus 4
PH 211 General Physics with Calculus 5

Winter

ENGR 212 Dynamics 4
PH 212 General Physics with Calculus 5

Spring

MTH 256 Applied Differential Equations 4
PH 213 General Physics with Calculus 5

* Students should select from the list of approved electives (see below) those courses that are required for admission, at the professional level, to the institution they plan to attend. In any case, sufficient selections must be made to bring the credit total to a minimum of 102. Oregon State University will accept a maximum of 108 transfer credit hours. Approved electives include:

BA 230 Business Law	4
BA 275 Business Quantitative Methods	4
BA 278 Intro to Management Science	4
CEM 263 Plane Surveying	3
CH 223 General Chemistry	4
CH 241 Organic Chemistry	4
CH 242 Organic Chemistry	4
CH 243 Organic Chemistry	4
CS 161 Intro to Computer Science I	4
CS 162 Intro to Computer Science II	4
ENGR 202 Electrical Fundamentals	4
ENGR 202 Electrical Fundamentals	4
ENGR 213 Strength of Materials	4
ENGR 245 Engineering Graphics and Design	4
ENGR 271 Digital Logic Design	4
MTH 255 Vector Calculus	4
MTH 265 Stats for Scientists & Engineers	4
PH 201 General Physics	5
PH 202 General Physics	5
PH 203 General Physics	5

ENGLISH/FOREIGN LANGUAGES

Faculty:

English: Art Bervin, Beth Camp, Tom Chase, Paul Hagood, Linda Spain, Jane White
Spanish: Vera Harding

The English/Foreign Languages Department offers courses that encourage students to improve their writing; to read, analyze, evaluate and appreciate literature; and to develop fluency in a second language.

Students with an interest in creative writing and graphic arts have worked recently with faculty advisors from the English and Fine and Applied Arts departments to produce LBCC's annual literary publication, *The Eloquent Umbrella*.

Students can apply classroom theory to the workplace by developing a Cooperative Work Experience (CWE) program that helps them satisfy degree requirements while gaining work experience related to their major. For example, students from technical and business writing classes have worked with local employers on writing projects.

Students wanting to pursue a transfer major or minor in English/Foreign Languages may work towards the Associate of Science with a major emphasis in Humanities and with a concentration in creative writing, literature or Spanish. (See Humanities.)

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GEOGRAPHY

See Social Sciences

HISTORY

See Social Sciences

HOME ECONOMICS

Advisor:

Bobbie Weber

Home economists work to improve the quality of family life through the practical application of science and technology. They learn to use skills from a wide variety of disciplines, from art to science to communications. They may choose to specialize in such diverse careers as textile design, early childhood education or food systems management. But throughout this multi-disciplinary field runs a common thread: a real concern for the family as it faces the challenges of a changing world. There are a large number of areas of concentration in the field of Home Economics. Because degree requirements vary according to the area of concentration chosen, it is essential for students to contact their advisor. It is strongly suggested that a student make an early identification of the college or university to which they plan to transfer.

Associate of Science with a major emphasis in Home Economics

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Requirements for all Home Economics

Majors 4

HEC 100 Perspectives in Home Economics 1
HEC 201 Individual and Family Development 3

Requirements for Human Development, Human Development/Early Childhood or Family Studies Majors 6-25

HDFS 200 Human Sexuality 3
HDFS 225 Child Development *or* 3
HDFS 226 Time to Grow (telecourse) 3

Human Development Majors also need to take
FN 225 Nutrition 4
Human Development majors taking the pre-professional Elementary Education Core also must take

MTH 211, 212, 213 Fundamentals of Mathematics I, II & III 12
and are encouraged to take
HDFS 199 Early Childhood Lab Experience 3

Requirements dependent upon area of concentration 15-34

HUMANITIES

Advisors:

See faculty in the subject area listings.

The Associate of Science degree with a major emphasis in Humanities is an interdepartmental program that provides students with a broad introduction to the humanities and permits the selection of an area of concentration in fine art, music, literature, theatre, creative writing, Spanish or philosophy/religion.

These programs prepare students for transfer to four-year colleges and universities and provide foundation skills in reading, writing and critical/analytical thinking necessary in any career.

Associate of Science with a major emphasis in Humanities

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Students are encouraged to include two years of a foreign language in their lower division program.

Core Requirements 15

HUM 100 Intro to Humanities (3)
 Selectives (12)
 (Select 12 credits from at least three of the following subject areas outside your area of concentration.)

☐ Art

ART 102 Understanding Art 3

☐ English (select from)

ENG 104, 105, 106 Intro to Literature
 (Fiction, Drama and Poetry) 9
 ENG 107, 108, 109 Lit. of the Western World 9
 ENG 201, 202, 203 Shakespeare 9
 ENG 204, 205, 206 Survey of English Lit 9
 ENG 207, 208, 209 Lit. of the Non-Western World
 (Asia, Africa and Latin America) 9
 ENG 253, 254, 255 American Literature 9

☐ Music

Select MUS 161 Music Appreciation 3

☐ Philosophy/Religion (select from)

PHL 201 Intro to Philosophy 3
 R 101 Intro to Religious Studies 3

☐ Spanish

SPN 232 Selected Readings 3

☐ Theatre

Select TA 111 Intro to Theatre 3

Areas of Concentration (Complete one of the following areas of concentration)

☐ Fine Art (24) 30

ART 115 Basic Design I: Composition 3
 ART 116 Basic Design II: Color 3
 ART 131, 132, 133 Drawing I, II & III 9
 ART 204, 205, 206 Intro to Art History 9

Electives (6)

91

☐ Literature (27) 30

☐ (Select two sequences) (18)

ENG 107, 108, 109 Lit. of the Western World
 ENG 204, 205, 206 Survey of English Lit.
 ENG 253, 254, 255 Survey of American Lit.

☐ (Select two courses) (6)

ENG 201, 202 Shakespeare

☐ (Select one course) (3)

ENG 203 Shakespeare
 ENG 207, 208, 209 Lit. of Non-Western World

Electives (3)

91

Note: Literature courses listed above may be applied toward the Humanities core requirements.

☐ Creative Writing (Repeat each course for 6 credits) (18) 30

WR 240 Personal Journal Writing 6
 WR 241 Intro to Imaginative Writing 6
 WR 242 Intro to Imaginative Writing 6
 WR 247 Literary Publication 3
 Any literature course (3)

Electives (6)

91

☐ Music (22) 30

MUS 101 Music Fundamentals I 3
 MUS 131 Group Piano 2
 MUS 134 Group Voice 2
 MUS 161 Music Appreciation 3
 Performance (Select from Concert Choir, Chamber Choir, Community Chorale or Community Big Band) 6
 Additional MUS or MP prefixed courses 6

Electives (8)

91

☐ Philosophy/Religion (18) 30

☐ (Select 6 courses)

PHL 201 Intro to Philosophy 3
 PHL 202 Elementary Ethics 3
 PHL 215 History of Western Philosophy 3
 R 101 Intro. to Religious Studies 3
 R 102 Religions of Western World 3
 R 103 Religions of Eastern World 3
 R 211 Old Testament: Hist. Background 3
 R 212 New Testament: Hist. Background 3

Electives (12)

91

☐ Spanish (24) 30

SPN 101, 102, 103 First-Year Spanish 12
 SPN 201, 202, 203 Second-Year Spanish 12

Electives (6)

91

☐ Theatre (18-21) 30

☐ (Select 6 courses)

TA 111 Intro to Theatre 3
 TA 121, 122, 123
 Fundamentals of Acting I, II, III 9
 TA 124 Reader's Theatre or 3
 TA 229 Oral Interpretation of Literature 3
 TA 125 Improvisation 3
 TA 161 or 162 or 163 Technical Theatre 4
 TA 180/282 Rehearsal & Performance or 3
 TA 185/285 Production Workshop 3

Electives (9-12)

91

JOURNALISM AND MASS COMMUNICATIONS

Faculty:

Rich Bergeman

The Journalism and Mass Communications degree program is for students interested in careers in journalism, business communications, public relations or advertising. The curriculum is designed with a two-fold purpose: to prepare students for transfer to a four-year college or university, where they can pursue bachelor's degrees in their chosen specializations, and to prepare graduates for entry-level positions in print media fields. The program is particularly advantageous to individuals who already hold bachelor's degrees in other fields and desire to move into journalism careers.

Students have the opportunity to participate as editors, writers, photographers, designers and advertising and production staff on student publications, thus getting a head-start on compiling a portfolio. Cooperative Work Experience (CWE) offers on-the-job learning experiences on and off campus.

Facilities for the Journalism and Mass Communications program include a computer-equipped news and editorial room.

Photography classes are supported by a series of fully equipped instructional darkrooms.

Besides the cost of books, students may expect to spend about \$50 for photographic materials.

Only those students who begin their program of study fall term may be assured of completing the degree in two years. Students entering winter or spring terms may find it necessary to spend more than six terms to complete degree requirements.

TRANSFER PROGRAMS

Associate of Science with a major emphasis in Journalism and Mass Communications

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Program Requirements 31

AA 229 Electronic Imaging I	3
JN 134 Intro to Photojournalism	3
JN 215A Journalism Lab (repeated for 3 credits)	3
JN 215B Journalism Production Lab (repeated for 4 credits)	4
JN 216 News Reporting and Writing	3
JN 218 Editing and Page Design	3
JN 224 Media & Society	3
JN 225 Intro to Advertising & Public Relations	3
JN 280 Cooperative Work Experience: Journalism	3
PHO 261 Intro to Photography	3

Electives 15

Recommended electives: AA 263 Reproduction Photography I, PHO 263 Color Photography, history, political science, economics, criminal justice, Cooperative Work Experience.

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LIBERAL STUDIES

The Liberal Studies curriculum offers a broad, general education that provides flexibility and a good foundation for a variety of career options. Although the program can focus on any number of subjects from a wide selection of disciplines, the degree is especially intended to facilitate transfer to Oregon State University's Evening/Weekend Baccalaureate Degree Program in Liberal Studies. The OSU program concentrates on the three themes of psychology, communication and global/cultural awareness.

Although Associate of Science degree credits transferred to OSU are accepted on a course-by-course basis, it is expected that students who complete the Liberal Studies curriculum at LBCC will have completed all OSU institutional lower-division baccalaureate core requirements as well as OSU College of Liberal Arts general requirements.

Associate of Science with a major emphasis in Liberal Studies

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Liberal Studies Core 18

Fine Arts	3
Humanities (Includes literature, history, philosophy, religion, music, theatre)	3
Non-western Culture	3
Social Sciences	3
6 additional credits from 2 areas above	6

Electives 26

90

MATHEMATICS

Faculty:

Elizabeth Lundy, Ron Mason, Roger Maurer, Wally Reed, Bill Siebler, Lynn Trimpe, Bob Ulrich, Betty Westfall

The Mathematics Department offers a full complement of courses for transfer students and provides service courses for students in the technical and occupational programs of the college. The department also offers developmental courses for students with little mathematics background or who are returning to school. The Mathematics Department participates in the Learning Center, which features individualized assistance for math students. The department also operates a computing facility, which supports science-oriented languages of BASIC, Pascal and Assembly Language and provides support for a variety of courses in engineering, physics, agricultural science and others.

The Mathematics Department offers a two-year Associate of Science degree with a major emphasis in mathematics designed for students who plan to transfer to a four-year institution to complete a baccalaureate degree in mathematics. This program provides those students with a solid foundation in mathematics and physics. Students entering the program with a strong high school mathematics and science background can expect to complete the program in two years. Students who must take pre-calculus mathematics courses should expect to spend more than two years in the program.

Associate of Science with a major emphasis in Mathematics

General Education Requirements 34

See graduation requirements for Associate of Science.

The mathematics and physical science requirements are met by the listed major requirements.

Major Requirements 50

Computer Science	3
(MTH 173P Microcomputers: PASCAL, or MTH 173B Microcomputers: BASIC or MTH 174B Microcomputers: Advanced BASIC or other programming course approved by the department.)	
MTH 251, 252, 253, 254 Calculus	16
MTH 255 Vector Calculus	4
MTH 256 Applied Differential Equations	4
MTH 261 Elementary Linear Algebra	4
MTH 265 Stats for Scientists & Engineers	4
PH 211, 212, 213 General Physics w/ Calculus ..	15

Electives 8-12

BA 211, 212, 213 Principles of Accounting	9
BI 101, 102, 103 General Biology	12
BI 201, 202, 203 General Biology	12
CH 121, 122, 123 College Chemistry	15
CH 221, 222, 223 General Chemistry	12
CS 161, 162, 213 Computer Science	12
EC 201, 202, 203 Principles of Economics	9
EC 213, 214 Principles of Economics	8
GS 104 Physical Science	4
GS 107 Astronomy	4
GS 108 Oceanography	4
MTH 111 College Algebra	4
MTH 111T College Algebra: Technical	4
MTH 112 Trigonometry	4
MTH 112T Trigonometry: Technical	4
MTH 113 Analytic Geometry	4
MTH 150 Intro to Statistics	4
MTH 231 Elements of Discrete Math	4
MTH 241 Math for Biological/Management/ Social Sciences	4
MTH 241T Elementary Calculus: Technical	4
MTH 245 Math for Biological/Management/ Social Sciences	4

92-96

MUSIC

Faculty:

Hal Eastburn, Gary Ruppert

The Performing Arts Department offers students a variety of academic and performance opportunities in music. Courses in music appreciation and music fundamentals support general education degree requirements in the arts. Group classes are offered in voice and piano, and individual lessons are available for most instruments and voice.

Students may participate in any of several performance groups: the Concert Choir, open to all students; the Chamber Choir, open by audition; and the Community Chorale and Community Big Band, both open to students as well as the general public.

The music program has excellent facilities, including large rehearsal rooms and small, individual practice rooms. Concerts are normally presented in the fully equipped theatre in Takena Hall.

The Performing Arts Department supports the Associate of Science degree with a major emphasis in humanities and a concentration in music. (See Humanities.)

PHILOSOPHY

See Social Sciences and Humanities

PHYSICAL EDUCATION AND HEALTH

Faculty:

Dave Bakley, Arlene Crosman, Randy Falk, Greg Hawk, Debbie Herrold, Verlund Kimpton

The Physical Education and Health Department provides a comprehensive program for students who want to gain knowledge about the value of preventive and corrective health practices and who want to participate in physical activities to gain and maintain fitness.

Health-related instruction includes theory and application of facts and attitudes for the health of the individual and the society.

Physical activity is provided through three distinct learning and participation opportunities: Students may learn lifetime recreational skills; developmental courses stress conditioning of the body and maintenance of a specific level of physical condition; and team sport courses provide a high level of conditioning and competition.

The department has excellent indoor and outdoor facilities to support exercise, physical education activities and athletics. A fully equipped, double-court gymnasium is located in the Physical Education Building as well as a weight training room. Complete shower facilities are available for men and women. Outside are two baseball diamonds, a complete track facility and tennis courts. The department also utilizes non-college facilities for activities such as swimming and bowling.

Intercollegiate athletics are offered in men's and women's basketball, men's baseball, women's volleyball, and men's and women's track and field.

The department offers the Associate of Science degree for students intending transfer to four-year programs as physical education and health majors. Career options include teaching, commercial and industrial fitness, pre-therapy, athletic training and leadership positions in sport and exercise programs.

Associate of Science Degree with a major emphasis in Physical Education and Health

General Education Requirements 46

SP 112 Fundamentals of Speech and PE 231 Lifetime Wellness required for the Skills component.

BI 101 and BI 102 General Biology required for biology Perspectives component.

CH 121 College Chemistry required for physical science Perspectives component.

Program Requirements 21

HE 250 Personal Health 3
HE 252 First Aid 3
PE 131 Intro to Health & Physical Education 3

Professional Courses: 12

PE 194A Prof. Act.: Basketball/Volleyball 2
PE 194C Prof. Act.: Golf/Tennis 2
PE 194D Prof. Act.: Softball/Badminton 2
PE 194E Prof. Act.: Swimming 2
PE 194F Prof. Act.: Track 2
PE 194H Prof. Act.: Weight Training/Aerobic Fitness 2

Required Support Course 4

BI 103 General Biology 4

Selective Support Courses 19

(Select 19 credits from the following courses)

*BI 231, 232, 233 Human Anatomy & Phys. 12
CH 122, 123 College Chemistry 10
FN 225 Nutrition 4
HE 201 A Living Look at Death 3
HE 207 Stress Management 3
PE 190 (Selective Areas of Need) 1
PE 232 Backpacking 3
PE 280 CWE Physical Education/Health 2-14
PSY 231 Human Sexuality 3
PSY 236 Human Development: Adult 3

* Recommended for students intending to transfer to Western Oregon State College.

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include a variety of specialized ways of looking at the world: anthropologists study the evolution of human beings and their ways of life; geographers describe the planet and concern themselves with distribution of population, economic conditions, ecological systems and the interaction between humans and their environment; historians seek to understand the present by analyzing the complexities of the past; political scientists explore the nature of government and the uses of power; psychologists are concerned with individual behavior and development; philosophers probe issues of truth, goodness and beauty; religionists examine how faith has expressed itself among groups and individuals; while sociologists consider group behavior and the structure of society.

Social science is a practical field for both the short term and the long run. It provides a valuable background for people interested in the social and civil services, law, education, journalism, government and business and for those pursuing undergraduate and graduate degrees in the humanities and the specialized fields of the social sciences.

Because all aspects of human culture are related and interdependent, the social science curriculum at LBCC is designed to provide students with a broad and integrated picture of the nature of human society along with some understanding of the major forces operating within it. To this end, students may pursue an Associate of Science degree with a major emphasis in Social Science and one of three areas of concentration: Behavioral Studies, American Studies or International/Intercultural Studies.

Behavioral Studies: Behavioral studies deal chiefly with the mind and personality of the individual, the relationship between men's and women's biological traits and their socially acquired characteristics, and the social interaction of individuals with one another and with groups.

American Studies: American studies deal with the culture, the development and the character of the United States and the Western Hemisphere, as well as contemporary social, economic and political problems and possibilities.

International/Intercultural Studies: International/intercultural studies deal chiefly with the study of ourselves as a part of a larger world consisting of a variety of culture and social systems that profoundly shape the nature of cooperation and conflict on the planet.

(Continued on next page)

PHYSICAL SCIENCES

Faculty:

David Benson, John Kraft, Raymond David Perkins, Steve Rasmussen

The Physical Science Department offers professional, technical and transfer courses in physics, chemistry, astronomy and general science subjects. The department has excellent teaching laboratories and lecture rooms, plus an analytical instrument room.

POLITICAL SCIENCE

See Social Sciences

PSYCHOLOGY

See Social Sciences

RELIGION

See Social Sciences and Humanities

SOCIAL SCIENCES

Faculty:

James Bell Anthropology/Geography
Doug Clark History/Political Science
Max Lieberman ... Sociology
Jerald Phillips Sociology/Criminal Justice
Gina Vee Psychology/Sociology
Michael Weiss History
Carolyn Wright Psychology

In general, social science is the field of human knowledge that deals with all aspects of the individual and group life of men and women. Considered separately, the social sciences

TRANSFER PROGRAMS

Associate of Science with a major emphasis in Social Science

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Area of Concentration 21

(Complete 21 credits in one area listed below, including at least one 9-credit sequence.)

☐ Behavioral Studies (21)

ANTH 101 Intro to Physical Anthropology	3
PHL 201 Intro to Philosophy	3
PS 207 Intro to Political Science	3
PSY 101 Psychology & Human Relations	3
PSY 110 Understanding Human Behavior	3
*PSY 201, 202, 203 General Psychology	(9)
PSY 215 Intro to Developmental Psychology	3
PSY 216 Social Psychology	3
PSY 231 Human Sexuality	3
*PSY 235 Human Development: Child	3
*PSY 236 Human Development: Adult	3
*PSY 237 Human Development: Aging	3
*SOC 204, 205, 206 General Sociology	(9)
SOC 214/CJ 202 Social Problems: Violence & Aggression	3
SOC 222 Marriage Relations	3
SOC 221/CJ 201 Juvenile Delinquency	3
SOC 244/CJ 101 Intro to Criminology	3

☐ American Studies (21)

ANTH 232 Native North Americans	3
GEOG 207 Geography of Oregon	3
*HST 201, 202, 203 United States History	(9)
PS 104 Problems in American Politics	3
*PS 201, 202, 203 American Government	(9)
PS 220 U.S. Foreign Policy	3
PS 252/CJ 226 Constitutional Law	3
SOC 206 General Sociology	3

☐ International/Intercultural Studies (21)

*ANTH 101 Intro to Physical Anthropology	3
*ANTH 102 Intro to Archaeology/Prehistory	3
*ANTH 103 Intro to Cultural Anthropology	3
GEOG 121 Physical Geography	4
*GEOG 202, 203, 204 World Regional Geography	(9)
*HST 101, 102, 103 Western Civilization	(9)
*HST 157 History of the Middle East & Africa	3
*HST 158 History of Latin America	3
*HST 159 History of Asia	3
HST 191 China - Society & Culture to 1911	3
HST 192 History of China: 20th Century	3
PHL 201 Intro to Philosophy	3
PHL 202 Elementary Ethics	3
PHL 215 History of Western Philosophy	3
PS 205 International Relations	3
PS 206 Comparative European Governments	3
PS 207 Intro to Political Science	3
PS 220 U.S. Foreign Policy	3
R 102 Religions of the Western World	3
R 103 Religions of the Eastern World	3

Selectives 12

(Select 12 credits from the two areas not selected as the major area of concentration, a minimum of 6 credits from each area. Three of these credits may be taken as CWE Social Science Internship.)

Electives 12

SOCIOLOGY

See Social Sciences

SPANISH

See English/Foreign Languages and Humanities

SPEECH

See Theatre/Speech

THEATRE/SPEECH

Faculty:

Jane Donovan, George Lauris, Bruce Peterson, Gary Ruppert

The Performing Arts Department offers students a variety of academic and performance opportunities in the areas of theatre and speech. Courses in speech communication support institutional general education degree requirements in communication; theatre courses, such as Introduction to Theatre, may be applied to requirements in arts and letters; courses such as Fundamentals of Acting and Improvisation are intended for students seeking to gain performance and communication skills. Credit opportunities also are available in technical theatre.

Most department performances are held in the fully equipped Mainstage theatre in Tadena Hall. The department also makes use of The Loft Theatre, a converted classroom in Tadena Hall, for reader's theatre, chamber theatre and other experimental theatre performances.

The Performing Arts Department offers the Associate of Science degree with a major emphasis in theatre and provides concentrations in theatre within the Associate of Science degree with a major emphasis in humanities. (See Humanities.)

Associate of Science with a major emphasis in Theatre

General Education Requirements 46

See graduation requirements for Associate of Science degree.

Program Requirements 27-30

(Select 9 courses)

TA 111 Intro to Theatre	3
TA 121 Fundamentals of Acting I	3
TA 122 Fundamentals of Acting II	3
TA 123 Fundamentals of Acting III	3
TA 124 Reader's Theatre	3
TA 125 Improvisation	3
TA 161 Fundamentals of Tech Theatre: Scenery ..	4
TA 162 Fundamentals of Tech Theatre: Lighting ..	4
TA 163 Fundamentals of Tech Theatre: Sound & Stage Management	4
TA 180/282 Rehearsal & Performance	3
TA 185/285 Production Workshop	3
TA 229 Oral Interpretation of Literature	3
Additional credits in Rehearsal & Performance, Production Workshop or Acting	3

Electives 14-17

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*Identifies courses that comprise elements of a 9-credit sequence.

COMMUNITY OUTREACH

Dean: Ann Smart, Student Services and Extended Learning Division

Dean: Mary Spilde, Business, Training and Health Occupations Division

Associate Dean: Susan Wolff, Extended Learning

EXTENDED LEARNING CENTERS

ALBANY CENTER

Interim Director:
Joanne Fitzgerald

The Albany Center is located in Takena Hall on the main LBCC campus, 6500 S.W. Pacific Blvd., and serves the general populations of Albany, North Albany, Tangent and Shedd. Workshops and courses are offered for professional upgrading and life enrichment in subjects such as conversational language, art, music, physical fitness, microcomputers, personal growth, consumer education and professional technical fields.

In addition to classes scheduled on campus, the Albany Center also offers courses in locations throughout the greater Albany area, including the Albany Senior Center, the Albany Boys and Girls Club, the Linn County Fairgrounds and the Albany Public Schools. To better serve the community, some courses are co-sponsored with other organizations, such as the Albany Parks and Recreation Department and Albany General Hospital.

Part-time students may register at the Albany Center for any class offered through an LBCC Extended Learning Center.

Evening Campus

During the regular academic year, the Albany Center is open Monday through Thursday 9 a.m. to 10 p.m. and 9 a.m. to 5 p.m. on Fridays, serving as the information and registration center for the evening classes.

BENTON CENTER

Director:
Susan Wolff

Assistant Director:
Dorie Nelson

Faculty:
Annamay Lundstrom, Ann Mills,
Joyce Moreira, Jason Widmer

The Benton Center is located at 630 NW 7th, Corvallis, in the former Washington Elementary School, and is open from 8 a.m. - 10 p.m. Monday through Thursday during school weeks and 8 a.m. - 4:30 p.m. on Fridays. The center serves all of Benton

County except the North Albany area, providing classes in the rural areas as well as in Corvallis. Many of the programs are made possible through the cooperation of school districts in the area.

The center has many self-study, open-entry labs that allow students to start a program when they are ready and to make their own schedule. The center provides lower division transfer courses, professional preparation programs and adult self-improvement courses. Popular subject areas include practical accounting, computer applications, art, writing, physical fitness, conversational languages, outdoor education, ceramics and parent education. Courses are offered during the day and in the evening. Registration and purchase of books for center classes occur there, too.

An academic counselor is available to residents of the area at no charge. Some evening hours are available. Appointments may be made by calling the center.

Accounting Lab

The Accounting Lab provides a place to upgrade accounting skills or learn practical accounting. Students may begin at any time and work at an individualized pace. The Practical Accounting course includes setting up journals and ledgers, preparing and understanding financial statements, and preparing payroll and payroll taxes. Students who complete all 12 credits should be equipped to handle full-cycle bookkeeping.

Adult General Education

Faculty:
Carolyn Gardner

Programs offered at the Benton Center include Adult Basic Education, General Education Development and English as a Second Language. For additional information, see "Adult General Education Programs" in the "Student Services" section of this catalog.

Business Technology Lab

Faculty:
Joyce Moreira

The Business Technology Lab offers a place to upgrade or to learn new office skills. Students work at an individualized pace with a manual of instruction and help from the instructors.

Every class requires attendance in the lab for a different number of hours based on the number of credits and duration of class.

When registering, students must call or report to the Business Technology Lab to select their attendance times so equipment may be

reserved. In addition to reserved hours, equipment may be used at other lab times on a seat-available basis.

IMPORTANT: Preregistered students who do not attend during the first week of classes may be subject to administrative withdrawal. Non-attendance during the term also may be cause for withdrawal.

Students may register for open-entry classes (indicated with an "0" footnote) at any time. Students registering after the first class week must check with the lab to be sure time is available to complete the course. Credits must be earned and lab hours used within the term they are purchased. Refunds are not given for unused lab hours.

Computer Lab

The Benton Center Computer Lab provides lecture classes, open labs and self-study classes. The lab has IBM-compatible computers, a wide variety of software and a friendly and helpful staff. The computers and software are available to all currently registered LBCC students at no cost during the open lab hours. Community members not enrolled in classes may purchase hours.

Math Lab

Faculty:
Ann Mills

The Benton Center Math Lab enables students to take a mathematics class in a self-paced, self-study individualized setting. The classes offered in the format are MTH 20 through MTH 112. There are always instructors available to answer questions and show students how to use the supplementary instructional resources. The lab also is a resource for students registered in lecture math classes. It is designed to provide a non-threatening and supportive place to get help with mathematics.

LEBANON CENTER

Director:
Al Barrios

The LBCC Lebanon Downtown Center is located at 550 Main Street. The center serves the communities of Lebanon, Scio, Lacombe, Crabtree and rural East Linn County. The center houses four classrooms, a Business Technology Lab, Math Lab, Developmental Education (ABE/GED) programs, academic counseling services, registration, bookstore functions, administrative operations as well as an Entrepreneur program and Linn County

COMMUNITY OUTREACH

Regional Strategies. Representatives for SCORE and the Linn County Veterans Affairs office are available the center on a monthly or appointment basis. The JOBS Program for East Linn County is located at the Santiam School. Although a variety of daytime classes are offered, the Lebanon Center schedule consists primarily of evening courses.

The Extended Learning Division emphasizes the value and rewards of lifelong learning opportunities by providing a broad range of courses to meet the interests and learning needs of the local community. Typical offerings include introductory college courses; job skills improvement and professional upgrading courses; and credit and non-credit courses in art, agriculture, business, mathematics, science, language arts, physical education and health, family living and self-improvement.

Other college services available through the Lebanon Center include career, academic and financial aid counseling; placement testing; test proctoring; telecourse tapes and viewing area; LBCC Library pick-up and drop-off point; general information about the LBCC campus and instructional programs; registration for part-time students; and textbook sales for classes offered through the Lebanon Center.

The center provides self-study, open-entry labs in Accounting, Adult General Education, Computer Applications and Business Technology, and Math. These labs allow students to start programs during the term and the flexibility to schedule around a changing work shift.

Accounting Lab

In the Lebanon Center's Accounting Lab students can take either the Practical Accounting series or General Bookkeeping. In General Bookkeeping, students learn how to analyze transactions; set up special journals, ledgers and business forms; and learn the background for full-cycle bookkeeping. The three (4-credit) accounting classes are self-study, variable credit and open entry, enabling students to start at any time during the term.

Adult General Education

Faculty:

Carolyn Gardner

Programs offered at the Lebanon Center include Adult Basic Education, General Education Development and English as a Second Language. For additional information see "Adult General Education Programs" in the "Student Services" section of this catalog.

Business Technology Lab

Faculty:

Carla Mundt

The Business Technology Lab offers a place to upgrade or learn new office skills. Students have the option of several different start times during the term and work at an individualized pace.

Courses offered apply towards the certificates and degrees offered by LBCC's Business Technology Department. See the "Professional Technical Programs" catalog section for program requirements.

Computer Lab

Self-study courses enable you to learn individually at your own pace on IBM-compatible machines. Classes are available Monday through Friday. Software selections include word processing, spreadsheets and data base programs. Accounting, graphics, entertainment and programming languages also may be explored. Open lab hours are available for individual or class projects.

Math Lab

Faculty:

Robert Lewis

The Math Lab is designed for individualized study and is available four evenings per week. Courses from Basic Mathematics through Trigonometry are offered in a self-study, variable-credit format, and classes may be entered at any time during the term.

SWEET HOME CENTER

Director:

Joanne Fitzgerald

The Sweet Home Center, located at 1314 Long Street, across from the post office, serves the communities of Brownsville, Halsey, Sweet Home, Cascadia and Foster. It was established to provide educational opportunities to the members of the communities it serves. The facility houses five classrooms, with several other locations throughout the area used for classes. The center has available a complete and efficient computer lab with IBM-compatible computers. Students may purchase time to practice on the equipment and use the software that is available. A variety of computer classes are offered both during the day and in the evening.

The Sweet Home Center provides a broad range of courses to meet the interests and learning needs of the local community, including college transfer, professional upgrading and general self-improvement courses for adults. Typical offerings include credit and non-credit courses in art, business, computer science, language arts, physical education, and home and family living.

Other college services available through the Sweet Home Center include career, academic and financial aid counseling; general information about the LBCC campus and instructional programs; registration for part-time students; and textbook sales for classes offered through the Sweet Home Center.

The center serves a diverse group of students, including those who have limited experience outside of educational institutions and those who re-enter the formal education process after experience in the world of work.

Adult General Education

Faculty:

Glenda Hopkins

Classes offered at the Sweet Home Center include Adult Basic Education and General Education Development. For additional information see "Adult General Education Programs" in the "Student Services" section of this catalog.

FAMILY RESOURCES DEPARTMENT

PARENT EDUCATION

Faculty:

Beth Hogeland

Parent Education classes are offered to those parents interested in learning more about child development, guidance and discipline, and planning educational activities for their children.

Parent/child classes, in which parents work with college faculty to provide quality educational experiences for themselves and their children, are offered in communities throughout the district.

Parent Education classes in schools and community agencies are coordinated through the department. Child and family specialists work with parents and professionals to design classes that support healthy family development and that meet specific needs.

Family Resource centers in rural areas provide places for families to meet for educational and support activities. FRCs house resource materials on a variety of topics interesting to parents. Some FRCs coordinate community services available to families, such as well-child clinics.

Family Literacy programs are available on the main campus and in conjunction with the Greater Albany Public Schools. These programs enable adults to obtain a GED or professional skills while learning how to help their preschool children develop skills to ensure success in school.

WORK AND FAMILY

Faculty:

Linda Donald, Pam Dunn

Child Care Resource and Referral

The Linn and Benton Counties Child Care Resource and Referral provides comprehensive information on available child care resources in Linn and Benton counties. This service works to improve the child care system by providing educational, training and consulting resources to families and child care providers, employers and employees.

Services include:

- child care referrals
- education and information about child care
- consultation and support services for child care providers and families
- consultation to employers/employees

Community residents can access this service through a district telephone line. Requests for other services can be made through the department.

Work and Family Seminars

Work and Family seminars are offered at the worksite and are tailor-made to company needs. Seminars provide opportunities for employees to increase their skill and ability to balance their work and family lives. Topics such as stress reduction, managing financial resources, and family communication and negotiation skills are included.

Participation in the seminars contributes to a healthy, productive workforce and promotes a supportive atmosphere among employees. The Work and Family Specialist consults directly with employers to enable them to plan a seminar series that meets the identified needs of their particular work force.

PARENT EDUCATOR & CHILD CARE TRAINING

Child Care Training

The Child Care Training program offers a variety of courses and short-term training for child care providers and students in the early childhood care and education field.

Teachers of young children may work in child care centers, family child care homes, Head Start, parent co-operatives or public schools. They plan and evaluate developmentally appropriate learning experiences in music, art, science, math and language. They also design indoor and outside environments, keep children's records and confer with parents.

Parent Educator Training

Through the department's Community Access to Family Support and Education project, parent educators receive training, support and coordination for the parent classes being offered in the communities of Linn and Benton counties.

FIRE SCIENCE

A variety of Fire Science classes are available to paid and volunteer firefighters based on needs and demand.

LIFE AND EMPLOYMENT DEVELOPMENT DEPARTMENT

Director:

Pete Bober

The Life and Employment Development Department oversees three different training and workforce programs: Job Opportunities and Basic Skills (JOBS), Turning Point Transitions, and Choice and Options. Each program offers participants a unique opportunity to explore options available to them as they make life and career transitions.

The staff of the Life and Employment Development Department work closely with other college departments and community organizations to provide educational, professional, technical and counseling services as part of their comprehensive job training and educational programs.

CHOICES & OPTIONS

Coordinator:

Kimberly Freeman

Choices & Options is a two-week group assessment and life skills class for dislocated workers. The class focuses on the student's identification of aptitudes, interests, life needs, transferrable skills, labor market information and professional/technical opportunities. The Choices & Options class empowers students to discover their strengths and build on their experiences to reach new goals.

Instructional areas include: aptitude and interest testing, interviewing techniques, resume writing, and career and life planning.

The program is a collaborative effort among LBCC, Community Services Consortium and Oregon Employment Division. The partners share the responsibility of curriculum development and training. Participants are referred to the program through the State Employment Division.

JOBS PROGRAM

Faculty:

Cherrill Boissonou, Susan Cogan, Susan Cowles, Carol Erickson, Nickie Frisch, Ann Malosh, Terry Schukart, Elaine Tilley, Beth Wibbens

The goal of the JOBS program is to enable individuals to make the transition from public assistance to self-sufficiency. Students, referred by Adult and Family Services and working with college faculty, develop individual programs that help prepare them for full-time, unsubsidized employment. Instructional areas include life and career planning; adult basic education; short-term, intensive professional/technical training; worksite training; and job search instruction.

TURNING POINT TRANSITIONS PROGRAM

Coordinator:

Kimberly Freeman

Faculty:

Mary Lou Bennett

Turning Point Transitions is a program for single parents, displaced homemakers, dislocated workers, spouses of dislocated workers and others who are experiencing a major life transition.

Participants learn to build self-confidence by improving communication and assertive abilities. Time and money management; positive parenting; living alone; wellness; and goal setting, decision-making and problem-solving techniques are topics considered under the life skills segment of the program. Career exploration is tailored to meet the needs of the participants who want to seek further education/training or to re-enter the job market. Child care and transportation are available to those in need of these services during the course. Call 967-0581 for more information.

RETIRED SENIOR VOLUNTEER PROGRAM

Benton County Director:

John Lee
Cynthia Hylton, Administrative Assistant

Linn County Director:

John Lee
Wanda Jarrett, Administrative Assistant
R.S.V.P. (Retired Senior Volunteer Program) is part of the Extended Learning Division. This program for people 60 years and older provides services to non-profit agencies. At Linn-Benton Community College, RSVP volunteers help prepare bulk mailings; assist with Student Programs sponsored activities; such as the Children's Christmas Party and the blood drive; serve as student greeters; and assist in the Bookstore during the beginning of each term.

TRAINING AND BUSINESS DEVELOPMENT CENTER

BUSINESS DEVELOPMENT CENTER

Faculty:

John Pascone, Dennis Sargent

This center offers assistance specially geared to businesses in the area. Assistance is designed to help businesses start up, stay in business and expand.

Available services include an information and referral service providing access to information regarding all aspects of business, such as start-up information, business plan preparation and preparing for financing. The center also provides confidential business counseling and can help the business owner find a variety of resources currently available in the community. Low-cost workshops are offered each term on a variety of business management topics.

The center provides intensive help to a select group of businesses through the Business Development, Business Management and Profit Improvement programs. These programs take the form of monthly meetings with instructors who work with participants on problems and help business owners maximize their capabilities to prosper and/or expand.

The center also makes available a variety of reference materials. The Business Development Center is cosponsored by the SBA (Small Business Administration) and the Oregon Economic Development Department.

CONTRACTED TRAINING

Faculty:

Barbara Bessey, Joe Vincent

Contracted Training responds to the unique training needs of business and industry. Demands are increasing to upgrade the workforce in many areas, and the college is providing training when and where business and industry needs it. Examples of the types of training that can be provided are computer applications, supervisory training, problem solving, interpersonal communication, total quality management and a wide variety of technical training topics.

Professional Development

The Training and Business Development Center offers quality, affordable professional development options for individuals and businesses. Many programs are available, including management and supervisory workshops and communication skills.

Short-Term Training

A variety of courses are offered to help people learn new skills or upgrade current skills. Courses to train employees for new industries moving into the area also are developed, including training areas such as retail sales, clerical, food service and word processing.

For more information on any of the programs offered through the Training and Business Development Center, call 967-6112. ♦

COURSE DESCRIPTIONS

PROFESSIONAL TECHNICAL COURSES

All courses that apply to LBCC degree and certificates have alphabetical prefixes (for example, AU for Automotive Technology, DR for Drafting, RH for Refrigeration, Heating and Air Conditioning).

Professional Technical courses are numbered 1.000 through 8.999.

Professional Technical courses generally do not transfer to four-year colleges and universities.

Courses with decimal point (0.---) and 9.000 - 9.999 numbers do not apply toward LBCC degree and certificate programs.

TRANSFER COURSES

College transfer courses are those classes with 100 and 200 numbers.

Classes with a decimal point in the number (such as OA 2.530) **are not transfer courses**.

Courses with numbers below 100 **are not transfer courses**.

Courses with 100 numbers are considered freshman-level courses.

Courses with 200 numbers are considered sophomore-level courses.

Courses marked with the symbols below may be applied toward fulfilling the General Education Requirements for the Associate of General Studies degree. These courses apply to that degree only. For lists of classes that fulfill General Education Requirements for other degrees offered at LBCC, see the "Graduation Requirements" section of this catalog.

- ◆ Computer Competency
- Humanities/Art
- Math/Science
- Social Sciences

AA Art (Graphic Communications)

AA 120 ART & COPY PREPARATION (6 class hrs/wk 3 cr) F/W

Studies the preparation of mechanical art. Stresses terminology and practice of layout and paste-up techniques, including use of headlines, body copy, line cuts and halftones. Includes imposition, screened prints, screen tints, overlays and color preparation.

AA 198 INDEPENDENT STUDIES

(2-6 class hrs/wk 1-3 cr) F/W/Sp
Individual instruction in advanced problems relevant to the student's interests and needs. Prerequisite: Instructor approval.

AA 221 GRAPHIC DESIGN I

(6 class hrs/wk 3 cr) F
Examines the relation of aesthetic concept to practical problems, with investigations into contemporary trends, methods and techniques. Black and white design, lettering and inking skills are stressed. Matting, papers and presentation also are included. Prerequisite: AA 120 Art and Copy Preparation; AA 224 Typographical Design I; AA 263 Reproduction Photography I. Corequisite: AA 237 Illustration I.

AA 222 GRAPHIC DESIGN II

(6 class hrs/wk 3 cr) W
The study and development of marks, symbols, logos, design systems and corporate identity programs. Examines the design's adaptability, application, practicality and integrity. Prerequisite: AA 221 Graphic Design I.

AA 223 GRAPHIC DESIGN III

(6 class hrs/wk 3 cr) Sp
A course in color and black and white illustration/design. Emphasizes typography and publication design. Prerequisite: AA 222 Graphic Design II.

AA 224 TYPOGRAPHICAL DESIGN I

(6 class hrs/wk 3 cr) F/W
Introduces letterforms to develop fundamental awareness of type and typographic design. Studies the evolution of typography, hand-built letterforms and designing with type. Emphasizes typography as a working tool.

AA 225 PACKAGING & THREE-DIMENSIONAL DESIGN

(6 class hrs/wk 3 cr) W
Introduces design, display and merchandising of three-dimensional marketing solutions. Stresses suitability of concept, design and color as applied to various products. Materials and methods of printing, cutting, folding and assembly are explored for tactile and visual effect. Prerequisite: AA 120 Art and Copy Preparation; AA 224 Typographical Design I; AA 237 Illustration I; AA 263 Reproduction Photography I.

AA 226 TYPOGRAPHICAL DESIGN II

(6 class hrs/wk 3 cr) F
Continues the study, use and design of letterforms. Emphasizes creating original type variations and form manipulation. Prerequisite: AA 120 Art and Copy Preparation; AA 224 Typographical Design I; AA 229 Electronic Imaging I; AA 263 Reproduction Photography I.

AA 228 PORTFOLIO PREPARATION: PROFESSIONAL PRACTICES

(6 class hrs/wk 3 cr) Sp
Emphasizes re-evaluation of previously produced projects; organization and production of the business card, resume and portfolio. Current job opportunities; methods in merchandising job talents; action before, during and after the interview; business practices and ethics are covered. Intended for second-year graphic design students. Prerequisite: AA 222 Graphic Design II. Corequisite: AA 223 Graphic Design III.

AA 229 ELECTRONIC IMAGING I

(6 class hrs/wk 3 cr) F/W
Introduces use of the Macintosh computer for generating final pages consisting of type matter and line copy. Explores various software programs for specific applications.

AA 237 ILLUSTRATION I

(6 class hrs/wk 3 cr) F
Explores and develops skills in the use of various tools, materials and techniques through class projects. Conceptual development of illustration dealing with written materials is examined. The intent of the course is to make the student aware of illustrative possibilities and processes. Prerequisite: ART 133 Drawing III.

AA 238 ILLUSTRATION II

(6 class hrs/wk 3 cr) W
Continues class projects to explore and develop skills in the use of various illustrational tools and materials. Conceptual development of illustration dealing with written material is stressed. Prerequisite: AA 237 Illustration I.

COURSE DESCRIPTIONS

AA 239 ILLUSTRATION III

(6 class hrs/wk 3 cr) Sp
Explores further possibilities in illustration, including techniques of painting and themes surrounding figures and their analogies to other 3-D forms. Prerequisite: AA 238 Illustration II.

AA 263 REPRODUCTION PHOTOGRAPHY I

(6 class hrs/wk 3 cr) Sp
Studies the function and use of the process camera for making line and halftone negatives and photo-mechanical transfer positives. Covers related darkroom techniques, including contacting, duplicating and color imaging. Prerequisite: PHO 261 Introduction to Photography.

AA 264 REPRODUCTION PHOTOGRAPHY II

(6 class hrs/wk 3 cr) F
Continues use of process camera and contacting equipment to provide additional experience in producing photographic line and tone images. Prerequisite: AA 263 Reproduction Photography I.

AA 280 CWE GRAPHICS

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to graphics. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

AG Agriculture

◆ AG 111 COMPUTERS IN AGRICULTURE

(4 class hrs/wk 3 cr) F/W
Agricultural examples and problems are utilized as a basis for the material in this course. Provides hands-on experience in the areas of word processing, data base and spreadsheets. Prerequisite: Instructor approval.

AG 280A CWE AGRICULTURE

(6-42 class hrs/wk 2-14 cr) Sp/Su
An instructional program designed to give students practical experience in supervised employment related to agriculture. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

AG 280B CWE ANIMAL TECHNOLOGY

(6-42 class hrs/wk 2-14 cr)
An instructional program designed to give students practical experience in supervised employment related to animal technology. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

AG 280C CWE HORTICULTURE

(6-42 class hrs/wk 2-14 cr)
An instructional program designed to give students practical experience in supervised employment related to horticulture. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

AG 8.125 SOILS I

(4 class hrs/wk 3 cr) F
Provides necessary soil science background for work with fertilizers, irrigation, drainage and other management practices. Physical, chemical and biological properties of the soil are discussed in relation to plant growth.

AG 8.126 SOILS II

(4 class hrs/wk 3 cr) W
Covers second phase of soils instruction, dealing with plant nutrition and the proper use of fertilizer and other soil amendments. Diagnosing plant problems, soil testing, fertilizer recommendations, methods of application, storage and handling are emphasized.

AG 8.130 AGRICULTURAL CHEMICALS

(5 class hrs/wk 4 cr) W
Covers background information in use and chemistry of herbicides, insecticides, fungicides and nematocides. Types of materials, safety in handling, land storage and method of application are emphasized. Students develop ability to interpret and explain to customers the directions and precautions to be observed with agriculture chemicals. Attention also is given to keeping current with new product development.

AG 8.131 PEST MANAGEMENT

(4 class hrs/wk 3 cr) F
Includes the classification, anatomy, growth, life history, recognition and control principles of selected weeds, diseases and insect pests.

AG 8.138 IRRIGATION SYSTEMS

(4 class hrs/wk 3 cr) W
Introduces principles and practices of irrigation, including soil, water and plant relations; water sources; quality; methods of distribution; and measurement. System design and selection also are emphasized, including surface and subsurface drainage systems.

AG 8.165 PLANT SCIENCE

(5 class hrs/wk 4 cr) F
Studies structure and function of flowering plants, with emphasis on crop and ornamental plants. Includes environmental effects on growth and other physiological processes, elementary genetics and recognition of major plant groups.

AG 8.167 FORAGE CROPS

(4 class hrs/wk 3 cr) Sp
Emphasizes practices that produce maximum economic returns for land devoted to hay, pasture or range. Includes establishment and management, fertilization, pest control, rotations, irrigations and renovation.

AG 8.171 FARM BUSINESS ANALYSIS

(4 class hrs/wk 3 cr) Sp
Presents basic accounting methods to familiarize student with fundamentals of farm recordkeeping and business analysis using farm records. Includes use of computers in farm records and production recordkeeping.

AH Allied Health

AH 5.409 CAREER COUNSELING FOR PRE-NURSING

(10 class hrs/wk 1 cr) F/W/Sp
Provides pre-nursing applicants with an assessment of own personal characteristics as they examine the career of nursing. Guidance in choosing a nursing career. Note: Two-week class.

AH 5.411 CARE OF THE AGED

(10 class hrs/wk 1-2 cr) F
Explores changes and adaptations for the older adult in the aging process. Focuses on psychological needs and implications for nursing care. Note: One-to-two week class.

AH 5.625 CLINICAL OFFICE PROCEDURES

(4 hrs/wk 4 cr) F
Teaches the basic clinical office procedures that are performed in the medical office, such as vital signs, asepsis and sterilization, diagnostic procedures and specimen collection. Basic pharmacology included. Prerequisite: Completion of first year of Administrative Medical Assistant program or instructor approval.

AH 5.630 MEDICAL TERMINOLOGY I

(3 class hrs/wk 3 cr) F/W/Sp/Su
Introduces the terminology of anatomy and physiology fundamental to the understanding of the physician's diagnosis and treatment. Includes basic root words, prefixes and suffixes.

AH 5.633 MEDICAL TERMINOLOGY II

(3 class hrs/wk 3 cr) F/W/Sp/Su
Continues 5.630 Medical Terminology I; emphasizes terminology related to body systems. Prerequisite: AH 5.630 Medical Terminology I.

AH 5.634 MEDICAL TERMINOLOGY III

(3 class hrs/wk 3 cr) Sp
Continues 5.633 Medical Terminology II; emphasizes specific pathology and medical practice areas. Prerequisite: AH 5.633 Medical Terminology II.

AH 5.730 NURSE/PATIENT INTERACTION

(8 class hrs/wk 1 cr) W
Helps students develop the ability to communicate with patients and other health care workers in more meaningful and purposeful ways. Participants practice skills that help them interact in a positive and assertive manner with increased awareness of feelings and understanding of behavior.

ANS..... Animal Science

ANS 121 ANIMAL SCIENCE

(5 class hrs/wk 4 cr) F
Introduces the livestock industry, including the importance of the various types of livestock enterprises, terminology, marketing, basic production practices and management techniques.

ANS 199 SPECIAL PROBLEMS

(4 class hrs/wk 3 cr)
Provides an in-depth application of principles necessary for the successful comprehensive analysis of beef, sheep and swine. Prerequisite: Instructor approval.

ANS 210 FEEDS AND FEED PROCESSING

(5 class hrs/wk 4 cr) W
Covers animal nutrition, including protein, vitamins, minerals, fat, carbohydrates, feed additives and the utilization of nutrients by livestock. Studies methods of determining feed values, types of feed, feed characteristics, nutritional requirements and composition, and methods of feeding.

ANS 211 APPLIED ANIMAL NUTRITION

(4 class hrs/wk 3 cr) Sp
Introduces formulating and analyzing rations for livestock, balancing nutritional needs and choice of ingredients in relation to cost and suitability. Includes economics of livestock feeding and performance indicators. Prerequisite: ANS 210 Feeds and Feed Processing.

ANS 220A APPLIED BEEF PRODUCTION

(5 class hrs/wk 4 cr) F
Covers basics of modern beef production and management, including cattle breeds, mating systems and reproduction, nutrition, marketing, production testing, diseases and parasites, and other management practices. Particular emphasis is on developing beef husbandry skills.

ANS 220C PRACTICAL HORSE SKILLS

(5 class hrs/wk 3 cr) Sp
Provides students practical skills in three specific areas of horse science: foot and leg care, fitting and showing, and horse conformation judging. Anatomy of the foot and leg and basic foot trimming skills are taught. Recognizing common unsoundnesses and blemishes also are covered. In addition, students learn proper techniques for preparing horses for show competition in halter, English and Western showing. Evaluation of horse conformation and halter judging are taught.

ANS 220D APPLIED SHEEP PRODUCTION

(5 class hrs/wk 4 cr) W
Fundamentals of modern sheep production, including sheep breeds, nutrition, reproduction, diseases and parasites, wool evaluations, marketing and modern management practices. Note: Course offered alternate years only. Offered 1993-94.

ANS 220E APPLIED SWINE PRODUCTION

(5 class hrs/wk 4 cr) W
Introduces modern swine production, including swine breeds, marketing, breeding, feeding, production testing, diseases and parasites, and production problems. Note: Course offered alternate years only. Offered 1994-95.

ANS 221 INTRODUCTORY HORSE SCIENCE

(5 class hrs/wk 4 cr) F
Basic course in commercial horse production and management. Covers breeds, breeding systems, nutrition, reproduction, diseases and marketing outlets. Also develops basic skills in handling, foot care, feeding, selection and health management.

ANS 222 YOUNG HORSE TRAINING

(6 class hrs/wk 2 cr) F
Provides hands-on ground training. The student is assigned a young horse to train for the term. Students may use their own horse or a horse will be provided. The training consists of halter breaking, leading, sacking, longeing, trailer loading, handling the feet and preparation for halter competition. In addition, grooming, safety and use of equipment is taught.

ANS 231 LIVESTOCK EVALUATION

(5 class hrs/wk 3 cr) Sp
Introduces criteria and principles in the physical evaluation of beef, sheep and swine. Emphasizes correctness of body type, relation of type to production, market standards, soundness and body parts. Extensive time is spent on applying techniques in evaluating live animals.

ANTH ... Anthropology

■ ANTH 101 INTRODUCTION TO PHYSICAL ANTHROPOLOGY

(3 class hrs/wk 3 cr)
Explores humankind's place in the natural order. Topics include origins of humankind; physical, behavioral and cultural development; and discovery and interpretation of various fossils.

■ ANTH 102 INTRODUCTION TO ARCHAEOLOGICAL PREHISTORY

(3 class hrs/wk 3 cr)
Introduces methods used to collect and interpret archaeological data. Includes major developments in technology that led to the establishment of ancient civilizations in the old and new worlds.

■ ANTH 103 INTRODUCTION TO CULTURAL ANTHROPOLOGY

(3 class hrs/wk 3 cr)
Introduces students to the cross-cultural perspectives necessary to examine the diversity of human cultures. Topics include cross-cultural perspectives of marriage and kinship; religious, economic, political and social systems; and language.

■ ANTH 107 ANTHROPOLOGY TODAY

(3 class hrs/wk 3 cr)
Surveys contemporary issues in anthropology as presented in popular media. Popular books, films and television offerings serve as the framework of the course.

ANTH 198 RESEARCH TOPICS

(1 class hr/wk 1 cr)
Offers topics of study in anthropology with individual research and/or field study. Prerequisite: WR 121 English Composition.

COURSE DESCRIPTIONS

■ ANTH 232 NATIVE NORTH AMERICANS

(3 class hrs/wk 3 cr)

Studies the earliest inhabitants of North America, including discussion of archaeological evidence of these first Americans, customs before white contact, westernization and contemporary issues.

ANTH 280 CWE ANTHROPOLOGY/ ARCHAEOLOGY

(6-42 class hrs/wk 2-14 cr)

An instructional program designed to give students practical experience in supervised employment related to anthropology/ archaeology. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

ARE Agriculture Economics

ARE 211 MANAGEMENT IN AGRICULTURE

(4 class hrs/wk 3 cr) F

Covers agriculture as a business; the decision-making process; tools of decision making; acquiring, organizing and managing land, labor and capital resources; and reasons for success and failure.

ARE 221 MARKETING IN AGRICULTURE

(3 class hrs/wk 3 cr) W

Covers all aspects of sales and marketing of agricultural products, including crops, commercial and purebred livestock, horses and ornamental plants. The commodities futures market, telemarketing and other specialized outlets are also included.

ART Art (Fine)

► ART 102 UNDERSTANDING ART

(3 class hrs/wk 3 cr) F/W/Sp

Surveys the principal concerns of art and artists through the study of visual art forms and aesthetics. Primarily a lecture format with some related studio experiences focusing on process and experience, not ability.

► ART 115 BASIC DESIGN I: COMPOSITION

(6 class hrs/wk 3 cr) F/W

Introduces values of black and white and concepts relating to shape, design structure, unity and proportion.

► ART 116 BASIC DESIGN II: COLOR

(6 class hrs/wk 3 cr) W/Sp

Studies concepts relating to color, its properties, combination, relatedness, proportions and interaction. Prerequisite: ART 115 Basic Design I: Composition.

► ART 131 DRAWING I

(6 class hrs/wk 3 cr) F/W

A basic-level course in drawing. Emphasizes the theories of drawing simple forms.

► ART 132 DRAWING II

(6 class hrs/wk 3 cr) W/Sp

Emphasizes composition and drawing complex forms. Prerequisite: ART 131 Drawing I or instructor approval.

► ART 133 DRAWING III

(6 class hrs/wk 3 cr) Sp

Emphasizes drawing very complex forms, composition and form invention. Explores a variety of drawing techniques and materials. Prerequisite: ART 132 Drawing II or instructor approval.

► ART 154 BEGINNING CERAMICS

(6 class hrs/wk 3 cr) F/W/Sp

Introduces clay as an expressive material. Covers composition of clay bodies and basic forming processes: slab, pinch, coil, press mold and potter's wheel. Emphasis is on form and surface treatment; some firing and glazing included. Note: Offered at the LBCC Benton Center, Corvallis.

► ART 181 INTRODUCTION TO PAINTING

(6 class hrs/wk 3 cr) F

Explores visual expression on a two-dimensional surface. Uses oil or acrylic paints for spatial development of color, shape and surface. No prerequisite required.

► ART 184 BEGINNING WATERCOLOR

(6 class hrs/wk 3 cr) W

Studies watercolor techniques and compositional ideas appropriate to directly observed subjects. Prerequisite: ART 131 Drawing I or instructor approval.

► ART 186 WATERCOLOR: LANDSCAPE

(6 class hrs/wk 3 cr) Sp

Studies watercolor techniques and compositional ideas appropriate to subjects from landscape. Prerequisite: ART 131 Drawing I or instructor approval. Note: Offered alternate years.

ART 198 INDEPENDENT STUDIES

(2-6 class hrs/wk 1-3 cr) F/W/Sp

A special studies class tailored to meet more advanced skill needs in discipline. Prerequisite: Previous studio experience; instructor approval.

► ART 204, 205, 206 INTRODUCTION TO ART HISTORY

(3 class hrs/wk 3 cr) F/W/Sp

Studies the history of Western visual art and its significance and relationship to mankind. (Recommended, but not required, that courses be taken in sequence.) ART 204 Ancient Art, (visual art from prehistory up to the Middle Ages); ART 205 Art of the Middle Ages (c. 1000 A.D. - 1750 A.D.); ART 206 Nineteenth & Twentieth Century Art (c. 1750 A.D. - Present).

► ART 234 FIGURE DRAWING

(6 class hrs/wk 3 cr) W/Sp

Introduces drawing the nude figure. Emphasizes anatomy, form, unity and development. Prerequisite: ART 131 Drawing I or instructor approval.

► ART 254 CERAMICS II

(6 class hrs/wk 3 cr) F/W/Sp

Provides instruction in clay construction for the experienced student, with advanced throwing and handbuilding, glazing and firing techniques. Prerequisite: ART 154 Beginning Ceramics or instructor approval. Note: Offered at the LBCC Benton Center, Corvallis.

ART 280 CWE FINE ARTS

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to fine arts. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

► ART 281 PAINTING

(6 class hrs/wk 3 cr) F

Exploration of two-dimensional visual expression using oil or acrylic paint. Prerequisite: ART 181 Painting.

► ART 282 PAINTING: PORTRAITURE

(6 class hrs/wk 3 cr) F

Explores portrait painting. Emphasizes composition, drawing, color and oil painting techniques. Prerequisite: ART 131 Drawing I or instructor approval. Note: Offered alternate years.

► ART 284 WATERCOLOR: ABSTRACTION

(6 class hrs/wk 3 cr) Sp

Explores the special effects of watercolor and their application to subject matter and compositional ideas. Prerequisite: ART 131 Drawing I or instructor approval. Note: Offered alternative years.

AS Aerospace Studies

AS 111, 112, 113 AEROSPACE STUDIES I

(1 class hr/wk 1 cr) Sp

Covers doctrine, mission and organization of the U.S.A.; U.S. strategic offensive and defensive forces, their mission, function, and employment of weapons; civil defense; aerospace defense; missile defense; U.S. general purpose and aerospace support forces; mission, resources, and operation of tactical air forces, with special attention to limited war; review of Army, Navy and Marine Corps general purpose forces.

AS 211, 212, 213 AEROSPACE STUDIES II

(1 class hr/wk 1 cr) Sp

Covers the development of air power; changes in the nature of military conflict; development of air power into an element of national security; development of concepts and doctrine governing employment of air power; technology affecting growth and development of air power; changing mission of the defense establishment, with emphasis on the U.S. Air Force; air power as employed in military, non-military and strategic operations.

AT Animal Technology

AT 8.147 LIVESTOCK SELECTION TECHNIQUES

(6 class hrs/wk 4 cr) F

Concentrates on techniques, selection and comparative judging of beef, sheep and swine and intensive work on developing oral reasons and terminology. Course designed for first-year students interested in competitive livestock judging. Members of this class are selected for the first step in competitive judging, including travel to collegiate contests.

AT 8.148 ADVANCED LIVESTOCK SELECTION

(6 class hrs/wk 4 cr) F

Advanced course in developing judging skills and techniques. Emphasizes oral reasons, market and breed type and characteristics. Members of this class are selected to participate in the top level of intercollegiate competitive livestock judging contests. Prerequisite: AT 8.147 Livestock Selection Techniques.

AT 8.150 GENETIC IMPROVEMENT OF LIVESTOCK

(5 class hrs/wk 4 cr) W

Introduces basic, practical concepts of improving livestock through a variety of genetic programs, including genetic possibilities, utilizing heritability for production gains, inbreeding coefficient, systems of breeding and improvement programs.

AT 8.156 LIVESTOCK DISEASES I

(4 class hrs/wk 3 cr) W

Covers the nature of livestock diseases caused by living organisms, including common infectious diseases, diagnosis, treatment and prevention. Modern drugs and medications, immunology and basic microbiology also are included.

AT 8.157 LIVESTOCK DISEASES II

(4 class hrs/wk 3 cr) Sp

Covers the nature of non-infectious diseases and parasites. Nutritional-, metabolic- and chemical-related diseases are studied, as well as internal and external parasites. Emphasizes diagnosis, control, treatment and prevention of economically important diseases.

AT 8.158 ARTIFICIAL INSEMINATION

(5 class hrs/wk 4 cr) Sp

Includes instruction on reproductive organs, hormones, diagnosis of heat, semen collection, insemination techniques, semen evaluation, pregnancy testing, freezing and dilution methods. Hands-on experience is stressed. Note: Recommended for second-year students. Certification available. Course offered alternate years only.

Offered 1994-95.

AT 8.163, 8.164 SCHOOLING THE HORSE I, II

(6 class hrs/wk 2 cr) W/Sp

Provides hands-on horse training experience. The student learns the fundamentals of horse training, including longeing, driving, biting, riding, reining and backing. Equipment, safety and horse "psychology" also are taught. Prerequisite: AT 8.174 Beginning Western Equitation; AT 8.175 Intermediate Western Equitation or instructor approval.

AT 8.174 BEGINNING WESTERN EQUITATION

(3 class hr/wk 1 cr) W

Teaches the fundamentals of Western riding, including safety, equipment, saddling, mounting, the aids, balance and control. Note: Additional fee required.

AT 8.175 INTERMEDIATE WESTERN EQUITATION

(3 class hrs/wk 1 cr) Sp

Emphasizes and reinforces skills learned in beginning course. Polishes the use of the aids and stresses skilled movements with the horse and proper seat position. Note: Additional fee required. Prerequisite: AT 8.174 Beginning Western Equitation or instructor approval.

AT 8.177 HORSE BREEDING MANAGEMENT

(5 class hrs/wk 3 cr) W

Familiarizes students with all aspects of reproductive management of the horse. Reproductive physiology, estrus cycles, breeding management, mare and foal care, stallion handling and recordkeeping are covered. Labs expose students to breeding management practices on commercial horse ranches in the local community.

AT 8.180, 8.181 SCHOOLING THE HORSE III, IV

(6 class hrs/wk 2 cr) W/Sp

Advanced training techniques for horses are emphasized. Introduces reining, dressage and jumping. Prerequisite: AT 8.163, AT 8.164 Schooling the Horse I, II.

AU ... Automotive Technology

AU 3.295 POWER TRAIN SYSTEMS

(20 class hrs/wk 1-10 cr) F/W

Studies the complete power train system, with emphasis on the theory, application and servicing of clutch systems, manual transmissions, transfer cases, drive lines, universal joints and differential assemblies.

AU 3.296 SUSPENSION/BRAKING SYSTEMS

(20 class hrs/wk 1-10 cr) F/Sp

Covers fundamental principles of automotive suspension systems, with emphasis on frames, steering systems, alignment and wheel balancing. In addition, a comprehensive study of disc and drum braking systems and their components is included.

AU 3.297 ELECTRICAL AND FUEL SYSTEMS

(20 class hrs/wk 1-10 cr) W/Sp

Introduces principles and terminology of fuel and carburetion systems and testing, servicing and repairing of electrical systems. Students work with techniques and overhaul procedures for carburetors, fuel pumps, fuel tanks, fuel gauges, fuel lines, fittings, charging systems, starting systems and other electrical components. Prerequisite: Placement Test scores for Reading Level I and MTH 20 Basic Mathematics or equivalent.

AU 3.298 AUTO TUNE-UP

(20 class hrs/wk 1-10 cr) F

Problem-solving course designed to develop knowledge and skills in auto tune-up. Emphasizes selection and use of equipment, including electrical test equipment, scan tools, the oscilloscope, emission test equipment and the dynamometer, to find malfunctions and make necessary repairs for optimum engine performance. Prerequisite: Automotive Technology major with sophomore standing or instructor approval required.

COURSE DESCRIPTIONS

AU 3.299 AUTOMOTIVE ENGINES

(20 class hrs/wk 1-10 cr) W

Surveys operating principles, maintenance, repair and overhaul of the internal combustion engine. Includes study of the various engine types, their component parts and related accessories. In conjunction with training in correct engine machining skills, an engine is rebuilt, returned to manufacturer's specifications and tested for performance. To include ten hours of Driveability. Prerequisite: Automotive Technology major with sophomore standing or instructor approval required.

AU 3.300 AUTOMATIC TRANSMISSIONS

(20 class hrs/wk 1-10 cr) Sp

Covers operating principles, testing and repair procedures of the automatic transmission. Directed toward developing ability to accurately analyze the performance factors or diagnose the malfunctions of these systems through the use of live units. To include ten hours of Driveability. Prerequisite: Automotive Technology major with sophomore standing or instructor approval required.

AU 3.301 AUTOMOTIVE SERVICE AND REPAIR PRACTICES

(20 class hrs/wk 1-10 cr) F/W/Sp

Provides advanced instruction and practice in diagnosing and servicing automotive problems; summarizes all the learning units in the auto technology two-year program. Emphasizes attitudes and philosophy of automotive employees who frequently must meet and deal with supervisory personnel and with the public. Experiences are provided to simulate the work of an auto technician. Prerequisite: Automotive Technology major or instructor approval required.

AU 3.303 MOBILE AIR CONDITIONING & COMFORT SYSTEMS I

(5 class hrs/wk 3 cr) W

Theoretic principles of mobile heating and air conditioning systems with emphasis on design, function, adjustment, service and testing of components.

AU 3.304 MOBILE AIR CONDITIONING SYSTEMS II

(5 class hrs/wk 3 cr) Sp

Presents theory and service practice in maintenance and repair of automotive comfort systems. Covers inspection, testing, repair and/or replacement of control units.

AU 3.307 MECHANICAL PROCESSES I

(3 class hrs/wk 2 cr)

Required for Automotive and Heavy Equipment Mechanics/Diesel majors. Covers competencies and skills required for the first year. Covers safety, hand tools, power tools, precision measurement, metric measurement, fasteners, torque, electrical principles and meter usage.

AU 3.308 MECHANICAL PROCESSES II

(3 class hrs/wk 2 cr)

Required for Automotive and Heavy Equipment Mechanics/Diesel majors. Covers service manual usage; pulling, pushing and lifting devices; tubing, hoses and fittings; and bearings and lubrication.

AU 3.309 MECHANICAL PROCESSES III

(3 class hrs/wk 2 cr)

Required for Automotive and Heavy Equipment Mechanics/Diesel majors. Covers engine basics, gaskets, seals and sealants; hydraulic principles; and tool maintenance.

BA Business

BA 101 INTRODUCTION TO BUSINESS

(4 class hrs/wk 4 cr) F/W/Sp/Su

Survey course in business, emphasizing organization, operation and management. Orients students to the field of business and helps them determine their field of major concentration.

BA 110D USING THE PC: DATA BASE

(4 class hrs/wk 2 cr) F/W/Sp/Su

Introductory course in using data base software, Paradox. Note: Five-week class.

BA 110H USING THE PC: HARD DISK MANAGEMENT

(4 class hrs/wk 1 cr)

Covers the use and management of the hard disk on IBM-compatible personal computer systems. Emphasizes the structuring of directories and use and creation of batch files. Note: Three-week class. Prerequisite: BA 110O Using the PC: DOS or equivalent knowledge.

BA 110O USING THE PC: DOS

(4 class hrs/wk 1 cr) F/W/Sp/Su

Covers the operations of the IBM PC and compatibles, DOS (Disk Operating System) and disk management for novice computer users. Note: Three-week class.

BA 110S USING THE PC: SPREADSHEETS

(4 class hrs/wk 2 cr) F/W/Sp/Su

Introductory course on spreadsheet software using Quattro Pro. Note: Five-week class

BA 160 PURCHASING

(3 class hrs/wk 3 cr)

Describes the fundamentals of purchasing, including the purchasing function; purchasing policies, procedures and manuals; public relations and purchasing ethics; supply quality and sources; and store keeping and personnel.

BA 171 INTRODUCTION TO BUSINESS COMPUTER SYSTEMS

(4 class hrs/wk 4 cr) F/W/Sp/Su

Covers the application of computers to solve business problems. Emphasizes designing, developing and implementing management information systems as well as using application programs as professional tools.

BA 203 INTERNATIONAL BUSINESS

(3 class hrs/wk 3 cr) F

An in-depth review of the basic principles of international business, including the history, economics, environment, organization's monetary and exchange systems, marketing and the socioeconomic activities that exist in a rapidly developing world economy.

BA 206 PRINCIPLES OF MANAGEMENT

(3 class hrs/wk 3 cr) F/W/Sp/Su

Provides the foundation for later courses in administration, management philosophies and management science.

BA 207 LABOR / MANAGEMENT RELATIONS

(3 class hrs/wk 3 cr) F/W/Sp

Covers the relationship between worker and employer that arises with the exchange of effort for reward. A study of the role that unions play in this relationship, the rights of management and labor, negotiation techniques and methods of settling labor disputes, including use of mediation and arbitration.

BA 211 PRINCIPLES OF ACCOUNTING I

(3 class hrs/wk 3 cr) F

Presents techniques of account construction and preparation of financial statements. Emphasizes application in problems of recording, measuring income, purchasing, sales, inventories, special journals and internal control of cash.

COURSE DESCRIPTIONS

BA 211A PRINCIPLES OF ACCOUNTING: FINANCIAL

(4 class hrs/wk 4 cr) W

Presents techniques of account construction and preparation of financial statements. Emphasizes application in problems of recording, measuring income, purchasing, sales, inventories, special journals and internal control of cash. Both sole proprietorship and partnerships are covered.

BA 212 PRINCIPLES OF ACCOUNTING II

(3 class hrs/wk 3 cr) W

Covers accounting systems and management control, concepts and principles of depreciation, merchandise inventory, evaluation, partnership and corporate accounting, capital stock, investments and dividends. Prerequisite: BA 211 Principles of Accounting I.

BA 213 PRINCIPLES OF ACCOUNTING III

(3 class hrs/wk 3 cr) Sp

Studies control accounting for departments and branches, cost accounting for manufacturing plants, capital budgeting techniques and their effect on business decisions and analysis of financial statements. Prerequisite: BA 212 Principles of Accounting II.

BA 213A PRINCIPLES OF ACCOUNTING: MANAGERIAL

(4 class hrs/wk 4 cr) Sp

Presents corporate accounting; managerial accounting, including accounting for manufacturing operations; job and process cost systems; capital budgeting techniques; and financial statement analysis. Prerequisite: BA 211A Principles of Accounting: Financial.

BA 217 ACCOUNTING & FINANCIAL ANALYSIS

(3 class hrs/wk 3 cr) F

A one-term course for students not majoring in business. Introduces the recording, summarizing, presenting and interpreting of accounting data. Emphasizes basic accounting principles and terminology, the accounting cycle and analysis of financial reports.

BA 222 FINANCIAL MANAGEMENT

(3 class hrs/wk 3 cr) Sp

Covers topics dealing with financing a business, emphasizing the tax environment, analysis of financial statements, working capital management, short- and long-term financial planning, budgeting and control. Prerequisite: BA 2.531 Practical Accounting II or BA 212 Principles of Accounting II.

BA 223 PRINCIPLES OF MARKETING

(4 class hrs/wk 4 cr) F/W/Sp/Su

Provides a general survey of the nature, significance and scope of marketing. Emphasizes customers (marketing analysis and strategy); business marketing decisions in promotion, distribution and pricing; and control of marketing programs.

BA 224 HUMAN RESOURCE MANAGEMENT

(3 class hrs/wk 3 cr)

Deals primarily with the first-line supervisor, emphasizing the supervisor's relations with subordinates, colleagues, boss and the union in a wide variety of situations.

BA 230 BUSINESS LAW

(4 class hrs/wk 4 cr) F/W/Sp

Introduces the framework of the law as it affects a business, how the law operates, how it is enforced and how it is used in business. Includes the origins of law, the relations of business to society and the law, evolution of business within the framework of the law, and the historical development and present-day applications of the law of contracts.

BA 233 MARKETING RESEARCH

(3 class hrs/wk 3 cr)

Identifies and examines markets that exist in our economy. Includes an analysis of products, projected and perceived products, and brand images.

BA 239 ADVERTISING

(3 class hrs/wk 3 cr)

Explains the role of advertising in the distributive process. Emphasizes various media; copy, illustration and layout; retail advertising and promotion; advertising budget; and an advertising program.

BA 242 INTRODUCTION TO INVESTMENTS

(3 class hrs/wk 3 cr)

Covers securities, investment concepts and economic trends for the private investor. Discusses investment objectives, portfolios, corporate securities and securities markets.

BA 250 SMALL-BUSINESS MANAGEMENT

(3 class hrs/wk 3 cr)

Covers the skills needed to own a small business, the opportunities of small business in the U.S. and the rewards of owning a small business.

BA 250A CREATING A SMALL BUSINESS

(3 class hrs/wk 3 cr)

Gives each student the skill needed to develop a plan for a new or existing small business. Each student actually develops a business plan as the term project.

BA 250B SMALL-BUSINESS DECISION MAKING

(3 class hrs/wk 3 cr)

Enables students to analyze common small-business problems. Decision-making methods and skills are developed and then applied to small-business case studies selected from a wide variety of areas of concern to a small-business owner or manager.

BA 269 PRINCIPLES OF BANKING

(3 class hrs/wk 3 cr)

Provides a descriptive orientation to fundamentals of bank functions. Helps the beginning banker acquire a broad operational perspective.

BA 270 MONEY AND BANKING

(3 class hrs/wk 3 cr)

Stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student. Emphasizes such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments and foreign exchange.

BA 271 ANALYZING FINANCIAL STATEMENTS

(3 class hrs/wk 3 cr)

Reviews basic accounting principles for those who have studied accounting and provides background for financial statement analysis by those with no accounting background. Course consists of two major sections: characteristics of financial statements and financial statement analysis. Prerequisite: BA 212 Principles of Accounting II.

BA 272 HOME MORTGAGE SERVICING

(3 class hrs/wk 3 cr)

Presents subject from the viewpoint of the mortgage loan officer who seeks to develop a sound mortgage portfolio. Includes the mortgage portfolio, mortgage plans and procedures and the mortgage loan officer's role in portfolio management.

BA 273 MARKETING FOR BANKERS

(3 class hrs/wk 3 cr)

Includes fundamental concepts and philosophy of marketing; market information and research; product distribution, promotion and pricing strategies; and market planning. Course directed toward bank personnel who know little about marketing as it pertains to banking.

COURSE DESCRIPTIONS

BA 274 INTERNATIONAL BANKING

(3 class hrs/wk 3 cr)

Presents the basic framework and fundamentals of international banking: how money is transferred from one country to another; how trade is financed; what the international agencies are and how they supplement the work of commercial banks; and how money is changed from one currency to another. Introductory course for those working in international departments, as well as for those involved in the domestic activities of their banks.

BA 275 BUSINESS QUANTITATIVE METHODS

(4 class hrs/wk 4 cr)

Presents statistical analysis and current quality control methods used in controlling an operation and making sound business decisions. Special attention given to assembling statistical description, sampling, Deming methods, inference, regression, hypothesis testing, forecasting and decision theory. Prerequisite: MTH 245 Math for Biological/Management/Social Science.

BA 276 AGRICULTURAL FINANCE

(3 class hrs/wk 3 cr)

Reflects the rapid growth of the off-farm agri-business sectors, and emphasizes general principles associated with evaluation of management and use of capital, rather than land and labor resources, which are more closely aligned with agriculture production.

BA 278 INTRODUCTION TO MANAGEMENT SCIENCE

(4 class hrs/wk 4 cr)

Applies mathematical and analytical techniques to business problems; linear programming, decision theory, simulation and forecasting, and inventory modeling. Prerequisite: BA 275 Business Quantitative Methods; MTH 241 Math for Biological/Management/Social Sciences.

BA 279 BANK INVESTMENTS

(3 class hrs/wk 3 cr)

Introduces the nature of primary reserves and loanable funds and how their uses are determined. Analyzes the primary and secondary reserve needs of commercial banks, sources of reserves and their random and cyclical fluctuations and shows the influence of these factors on investment policy. Analysis is followed by a study of yield changes as they affect a bank's long-term holdings.

BA 280B CWE BUSINESS MANAGEMENT

(6-42 class hrs/wk 2 - 14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to business management. Students identify job performance objectives, work a specified number of hours during the term and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

BA 282 TRUST FUNCTIONS AND SERVICES

(3 class hrs/wk 3 cr)

Presents a complete picture of services rendered by institutions engaged in trust business. Provides an introduction to the services and duties involved in trust operations. Course is intended for all bankers, not only those engaged in trust business, and endeavors to keep clear the distinction between business and legal aspects of trust functions.

BA 285 BUSINESS RELATIONS IN A GLOBAL ECONOMY

(3 class hrs/wk 3 cr) F/W/Sp/Su

Examines culture and cultural diversity and their impact on organizations. Issues such as motivation, communication, value development, prejudice and discrimination are examined. Focuses on understanding one's own culture and gaining an appreciation for and understanding of other cultures.

BA 2.108 TOTAL CUSTOMER SERVICE

(3 class hrs/wk 3 cr)

Provides an overview of customer service-based organizations and the service sector in United States industry. Total customer service helps students understand why customer service is imperative, how to achieve it and the costs associated with T.C.S. programs.

BA 2.120 MANAGEMENT OF BUSINESS FACILITIES

(3 class hrs/wk 3 cr) Sp

Students learn and recognize the importance of facilities and operations management in an organization. Covers basic security models and systems, safety and OSHA, and physical distribution.

BA 2.127 GOVERNMENTAL ACCOUNTING

(3 class hrs/wk 3 cr) F

Covers accounting theory and procedures for governmental and not-for-profit entities, including budgetary and expenditure control. Prerequisite: BA 2.531 Practical Accounting II or BA 212 Principles of Accounting II.

BA 2.132 TOTAL QUALITY MANAGEMENT

(3 class hrs/wk 3 cr) W

Introduces the methods of total quality management used in business and government. Topics include quantitative statistical methods, process control and current quality management processes. Prerequisite: MTH 65 Elementary Algebra.

BA 2.518 COMMERCIAL LAW

(3 class hrs/wk 3 cr) F/W

Introduces the study of law and business, legal reasoning and the evolutionary process of law, the legal environment of business and principles of contract law. Emphasizes the study of business agreements, their information, operation, performance and discharge.

BA 2.530 PRACTICAL ACCOUNTING I

(5 class hrs/wk 4 cr) F/W/Sp/Su

Covers the fundamental principles of double-entry accounting, general journals and ledgers, business forms, simple financial statements and the completion of the accounting cycle. Emphasizes cash receipts and payments, payroll accounting, purchases and sales.

BA 2.531 PRACTICAL ACCOUNTING II

(5 class hrs/wk 4 cr) W/Sp

Continues BA 2.530 Practical Accounting I, with an explanation of the accounting cycle to include special journals, ledgers and business forms, including the voucher system. Emphasizes accounting for a partnership. Prerequisite: BA 2.530 Practical Accounting I.

BA 2.532 PRACTICAL ACCOUNTING III

(5 class hrs/wk 4 cr) Sp

A third course in the Practical Accounting sequence, includes entries requiring analysis and interpretation, unearned and accrued items, depreciation of assets, manufacturing accounting and other managerial accounting procedures. Emphasizes accounting for a corporation. Prerequisite: BA 2.531 Practical Accounting II.

BA 2.534 COST ACCOUNTING

(3 class hrs/wk 3 cr) W

Relates theory to practical problems in analysis and control of material, labor and overhead costs in manufacturing. Emphasizes the job cost system. Prerequisite: BA 2.531 Practical Accounting II or BA 212 Principles of Accounting II.

BA 2.595 PROFESSIONAL ACCOUNTING I

(3 class hrs/wk 3 cr) F

Provides an advanced study of accounting theory and practice for measurement of income and valuation of assets in financial statement presentation. Reviews accounting concepts and alternative approaches to various problems. Prerequisite: BA 2.532 Practical Accounting III or BA 213 Principles of Accounting III or instructor approval.

BA 2.596 PROFESSIONAL ACCOUNTING II

(3 class hrs/wk 3 cr) W

Continues the Intermediate Accounting sequence. Covers advanced concepts and procedures of valuation for various types of assets and liabilities, including special problems related to investments, plant, property and equipment, consolidations and corporate accounting. Prerequisite: BA 2.595 Professional Accounting I.

BA 2.597 PROFESSIONAL ACCOUNTING III

(3 class hrs/wk 3 cr) Sp

Continues the Intermediate Accounting sequence. Emphasizes fund flow analysis, financial errors, preparing statements from incomplete data, correcting errors in prior year statements and price level changes. Prerequisite: BA 2.596 Professional Accounting II.

BA 2.684 COMPUTERIZED ACCOUNTING: PAYROLL

(4 class hrs/wk 3 cr) F/W/Sp/Su

Provides hands-on computer experience in accounting applications, including general ledger, accounts receivable, accounts payable, payroll and financial statements. Emphasizes payroll accounting. Prerequisite: BA 2.530 Practical Accounting I or BA 211 Principles of Accounting I.

BI..... Biology

● **BI 101, 102, 103 GENERAL BIOLOGY**

(5 class hrs/wk 4 cr) F/W/Sp/Su

Lab science courses designed for non-majors. May be taken in any order. BI 101, cells, physical and chemical properties of life, inheritance and evolution. BI 102, structure, function and behavior of plants and animals. BI 103, diversity of living things and interrelationships among living things and their environments. Different sections of each course emphasize different themes; students may choose the theme that interests them most: BI 101: History of Life, Human Diseases, Principles of Biology, and Reproductive Strategies. BI 102: Animal Behavior, Nutrition and Health, Human Body, Green World and Principles of Biology. BI 103: Environmental Issues, Garden Ecology, Living Forest, Living Planet, Marine Biology, Oregon Ecology and Principles of Biology.

● **BI 164 NATURE PHOTOGRAPHY I**

(4.5 class hrs/wk 3 cr)

Covers camera functions and how they affect the photographic image, things of significance in nature and perceiving images for scientific documentation or artistic expression. Students are given specific assignments in the field in order to reinforce classroom concepts and theories. Note: A 35mm SLR camera is required. Flash unit, tripod and close-up ability recommended.

● **BI 201, 202, 203 GENERAL BIOLOGY**

(7 class hrs/wk 5 cr) F/W/Sp

Introductory course intended for science majors: Botany, Zoology, Forestry, Microbiology, Fisheries and Wildlife, Agriculture, Pre-Medical, Pre-Dental, Pre-Veterinary, Pre-Pharmacy, Biology. BI 201: Cellular and biochemical basis of life, as well as structure and function of plants and animals. BI 202: Genetics, evolution, ecology and behavior. BI 203: Survey of major groups of organisms. Corequisite: CH 121, 122, 123 College Chemistry or CH 221, 222, 223 General Chemistry.

● **BI 231, 232, 233 HUMAN ANATOMY & PHYSIOLOGY**

(5 class hrs/wk 4 cr) F/W/Sp/Su

An introduction to the structure and function of the human body. This course is of particular benefit to students in the health professions and physical education, but is valuable to others interested in the anatomy and physiology of the body. BI 231, structure and function of the cell, basic biochemistry, tissues, integumentary system, skeletal system and muscular system; BI 232, respiratory system, urinary system, fluid and electrolyte balance, endocrine system, blood and cardiovascular system; BI 233 lymphatic and immune systems, digestive system, metabolism, nervous system, senses and reproductive system. Note: Must be taken in order. Prerequisite: MT 65 Elementary Algebra; CH 121, CH 221 General Chemistry or CH 112 Chemistry for Health Occupations or equivalent or concurrent enrollment in any of these chemistry courses.

● **BI 234 MICROBIOLOGY**

(5-7 class hrs/wk 4 cr) F/W/Sp/Su

Introductory course; first in a series of three microbiology courses with laboratory. Covers all forms of microbial life, with emphasis on bacteria. Emphasizes application of microbiology to every day living. Medical, industrial, food and water microbiology and sanitation are reviewed.

● **BI 235 ELEMENTARY MEDICAL MICROBIOLOGY**

(6 class hrs/wk 4 cr) W

Second in a series of three microbiology courses with laboratory. Surveys pathogenic bacteria and other pathogenic microorganisms. Covers characteristics of organisms, diseases they cause, their significance to human health and methods of control. The lab accompanying this course demonstrates morphology and growth characteristics of common pathogens and introduces diagnostic techniques.

● **BI 236 MOLECULAR BIOTECHNOLOGY**

(6 class hrs/wk 4 cr) Sp

Third in a series of three microbiology courses with laboratory. Laboratory course covering diagnostic immunology techniques such as precipitation reactions, agglutination reactions, complement fixation, immunofluorescence and enzyme-linked immunosorbent assay; the use of DNA probes with application to blot assays; amino acid sequencing; and the strategies and processes used in gene cloning, such as cloning vectors, screening, restriction enzymes and genomic libraries. Laboratory exercises allow students to practice techniques described in lecture.

COURSE DESCRIPTIONS

● BI 251 PRINCIPLES OF WILDLIFE CONSERVATION

(3 class hrs/wk 3 cr) W

Introduces the interrelationships between the physical environment and wild animal populations. Examines the history of wildlife conservation and natural resource use, man's relationship to his natural environment, dynamics of animal populations, principles and practices of fisheries and wildlife management, and the role of wildlife biologists.

● BI 252 WILDLIFE RESOURCES: BIRDS

(3 class hrs/wk 3 cr) Sp

Introduces the biology of birds, with specific emphasis on the ecological and physiological adaptations of birds, flight, migration, bird behavior and identification and natural history of the common birds of Oregon.

BI 280 CWE BIOLOGY

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to biology. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

BI 4.220, 4.221 INTEGRATED BASIC SCIENCE I, II (DENTAL)

(4-6 class hrs/wk 3-4 cr) F/W

Integrated science course for dental assistant students. BI 4.220, general principles of anatomy and physiology and anatomy and physiology of the head and the teeth; BI 4.221, anatomy and physiology of the head and teeth, embryonic development of the mouth and teeth, microbiology and pharmacology.

CA Culinary Arts

CA 8.310, 8.311, 8.312 FOOD SERVICE PRACTICUM I, II, III

(18 class hrs/wk 5-6 cr) F/W/Sp

The Food Service Practicum classes I, II, and III take the student through a comprehensive hands-on sequence designed to develop, through practice, the basic skills and attitudes necessary for a successful career in Food Service. Stations include Baking, Pantry, Garde Manger, Soups and Sauces, Entree Cookery, Vegetable Cookery, Grill and Sandwich, Healthy and Natural Foods, and Dining Room. High professional standards and attitudes are stressed. These practicums are designed for the serious career-oriented individual. Prerequisite or Corequisite: CA 8.337 Stations and Tools; CA 8.336 Food Service Safety and Sanitation.

CA 8.321, 8.322, 8.323 ADVANCED COOKING MANAGEMENT I, II, III

(20 class hrs/wk 6 cr) F/W/Sp

From the fundamental skills attained in Practicum I, II & III, students refine and advance their culinary skill to include a la carte, front line cookery, advanced baking and pastry, advanced garde manger and dining room management skills. Students are directly involved in running a "working restaurant," giving them a realistic experience while honing work habits and awareness of production demands.

CA 8.336 FOOD SERVICE SAFETY & SANITATION

(10 class hrs/wk 1 cr) F/W/Sp

Makes students aware of the hazards of poor sanitation and safety through lecture and assigned readings. They also are educated in proper personal hygiene, equipment handling and care of facilities. Note: One-week class.

CA 8.337 STATIONS, TOOLS AND CULINARY TECHNIQUES

(20 class hrs/wk 3 cr) F

A program orientation course providing students a thorough first exposure to the history of food service; identification and use of common ingredients; to professional work habits and attitudes; and to a basic understanding of equipment, knife handling techniques and culinary terms and methods. Note: Two-week class.

CA 8.341 SOUPS AND SAUCES

(10 class hrs/wk 2 cr) W

Provides study and practice in the art of classical and modern sauce and soup making from varied national and ethnic cuisines. Note: Three-week class.

CA 8.345 SERVICE TECHNIQUES

(5 class hrs/wk 1 cr) W

Teaches the skills of dining room service by a combination of lecture, demonstrations and role playing. In addition, students learn the fundamentals of banquet service, wine service and building customer relations. Note: Two-week class.

CA 8.350, 8.351, 8.352 8.353 BANQUETS & BUFFET LAB A, B, C, D

(3 class hrs/wk 1-2 cr) F/W/Sp

Provides students the opportunity to participate in actual banquet and buffet functions, from small caterings to very large banquets. Set up, production load, banquet and catering plans, service techniques, organizational skills, costs and breakdown systems are presented.

CA 8.354 BANQUETS & BUFFET LAB E

(3 class hrs/wk 1 cr) F

Enables students (especially those interested in catering) to acquire banquet experience in addition to the required A, B, C and D classes.

CA 8.368 CREATING THE MENU

(10 class hrs/wk 1 cr) F

Covers history of the menu, styles of menus, consideration of nutrition, work load, flow of goods and sales. Note: One-week class.

CA 8.373 COSTING

(10 class hrs/wk 1 cr) F

Teaches theory and practice of determining food cost for restaurant and institutional cooking. Note: One-week class.

CA 8.402 BAKING FUNDAMENTALS

(8 class hrs/wk 1 cr) F

Provides knowledge and use of bakery tools and equipment. Techniques in production and finishing; forming rolls; using the pastry bag; baking yeast and quick breads, cakes, cookies and pies are covered. Students recognize and learn causes of common faults in baked goods. Note: Two-week class.

CA 8.404 CHEESE, EGGS & BREAKFAST COOKERY

(10 class hrs/wk 1 cr) F

Uses demonstration, lecture, and hands-on experience to take students through fundamentals of purchasing, storing, cooking and serving of cheese, eggs, omelettes, potatoes, pancakes, crepes, cereals, coffee and tea. Note: Two-week class.

CA 8.405 SEAFOOD & POULTRY COOKING

(10 class hrs/wk 1 cr) W

Covers purchasing, storing and preparing the major types of seafood and poultry through a combination of lectures and hands-on experience. Note: Two-week class.

CA 8.407 PANTRY

(10 class hrs/wk 1 cr) F

Introduces basic preparation and presentation of salads, dressings, hot and cold sandwiches, appetizers, beverages and garnishes. Includes selecting and preparing greens and fruits. Stresses production and planning organization of the work station for peak efficiency. Note: Two-week class.

CA 8.409 MEATS & MEAT COOKERY

(6 class hrs/wk 3 cr) Sp
Covers fabricating primal and sub-primal cuts of beef, pork and lamb for profitable use in restaurants. Includes knife techniques, portion cutting and safe and sanitary meat handling and storage. Proper cooking procedures and techniques also are presented. Note: Eight-week class.

CA 8.411 VEGETABLE COOKERY

(8 class hrs/wk 1 cr) F
Covers purchasing, preparing and serving of green, red, white and yellow vegetables, as well as potatoes, grains, legumes and pastas, through demonstration and practice. Note: Two-week class.

CA 8.414 GARDE MANGER

(8 class hrs/wk 1 cr) W
Covers history of food presentation and chateaurerie, as well as parts of cold kitchen, aspic work, appetizers and hors d'oeuvres. Utilization is covered by lecture, demonstration and practical application. Note: Two-week class.

CA 8.415 ADVANCED BAKING & PASTRY

(8 class hrs/wk 2 cr) F/W/Sp
Provides practice in "roll-in" doughs, cake decorating, petit fours, chocolate and candy making, as well as advanced cake and tortes, breads, and icing, with an emphasis on fine techniques and speed. Note: Four-week class.

CA 8.418 BEVERAGE OPERATIONS & SERVICES

(4 class hrs/wk 2 cr) F
Covers the art and science of beverage production, classifications, standards of identity, taste and characteristics, service and merchandising, costing and controls, standard glassware, sanitation and federal and state ordinances. Note: Five-week class.

CA 8.419 NUTRITION & SPECIAL DIETS

(6 class hrs/wk 1 cr) Sp
Covers practical use of food and menus to assure a proper balance of both macro-nutrients (carbohydrates, fats, and proteins) and micronutrients. Vitamins and minerals discussed. Fiber needs and prevention of diet-related illness are covered. Note: Two-week class.

CC Child Care

CC 7.180 SUPERVISED PLACEMENT

(6 class hrs/wk 4 cr) F/W/Sp
Students work in child development lab setting under direction of instructor. Assignments may include material preparation, skill training or specific care tasks. Weekly class session permits students from various placements to share common learning experiences and tie placement activity to training objectives.

CEM Civil Engineering Technology

CEM 263 PLANE SURVEYING

(4 class hrs/wk 3 cr) F
Basic course in surveying techniques. Includes fundamentals of chaining and leveling, use of basic surveying instruments and office procedures. Practical application of procedures and instruments is provided through appropriate field problems. Prerequisite: DR 4.131 Drafting or DR 4.124 Technical Drawing.

CG College Skills

CG 111 COLLEGE LEARNING AND STUDY SKILLS

(3 class hrs/wk 3 cr) F/W/Sp
Assists students in developing the academic strategies necessary for being successful in a community college or four-year college. Skills taught emphasize learning from lectures and printed material, organizing information, managing student responsibilities, preparing for and taking tests, and applying alternative learning strategies. Prerequisite: Appropriate reading competence as indicated by College Placement Test.

CH Chemistry

CH 111 INTRODUCTORY CHEMISTRY

(5 class hrs/wk 4 cr) W
Introduces basic chemistry and laboratory skills. Designed for students with no previous chemistry background. Prerequisite: MTH 60 Beginning Algebra or equivalent.

CH 112 CHEMISTRY FOR HEALTH OCCUPATIONS

(6 class hrs/wk 5 cr) F/W/Su
Introductory topics in inorganic, organic and biological chemistry specifically selected to prepare students entering Nursing, Emergency Medical Technician and related Health Occupations programs. Prerequisite: High school algebra or equivalent, or MTH 60 Beginning Algebra.

CH 121, 122, 123 COLLEGE CHEMISTRY

(7 class hrs/wk 5 cr) F/W/Sp
Three-term survey of the principles of inorganic, physical, organic, nuclear and biological chemistry for students in science-related fields, including health occupations, agriculture, animal science, fisheries and wildlife, life science, education, general science and earth science. Note: Must be taken in sequence. Prerequisite to CH 121: MTH 65 Elementary Algebra or equivalent; high school physical science or equivalent. Prerequisite to CH 122: MTH 95 Intermediate Algebra and CH 121 College Chemistry. Prerequisite to CH 123: CH 122 College Chemistry.

CH 221, 222, 223 GENERAL CHEMISTRY

(6 class hrs/wk 4 cr) F/W/Sp
A three-term sequence for science, engineering and health pre-professional students. Must be taken in order. Introduces physical and chemical aspects of inorganic and organic chemistry. Topics include atomic structure, chemical bonding, chemical equilibrium, rate of reaction, acids and bases, oxidation and reduction, nuclear chemistry, organic chemical compounds and polymers. Prerequisite to CH 221: high school chemistry or CH 112 Chemistry for Health Occupations or CH 4.205 Technical Chemistry. Prerequisite to CH 222: MTH 111 College Algebra.

CH 241, 242, 243 ORGANIC CHEMISTRY

(6 class hrs/wk 4 cr) F/W/Sp
A three-term sequence for science and health pre-professional students (such as pharmacy, medicine and veterinary). Must be taken in order. Topics include structural theory and functional groups, nomenclature, stereochemistry, reactions and synthesis of organic chemical compounds. Reaction mechanisms are emphasized. Prerequisite: One year of General or College Chemistry.

CH 280 CWE CHEMISTRY

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program to give students practical experience through supervised employment related to chemistry. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

COURSE DESCRIPTIONS

CH 4.205 TECHNICAL CHEMISTRY

(5 class hrs/wk 4 cr) F

For students who require a basic knowledge of chemistry for a technical field of study. Emphasizes concepts of chemistry that are commonly utilized in fields such as agriculture, electronics and metallurgy. Prerequisite: MTH 60 Beginning Algebra or equivalent.

CJ..... Criminal Justice

■ CJ 100 SURVEY OF CRIMINAL JUSTICE SYSTEMS

(3 class hrs/wk 3 cr) F/W/Sp

Surveys the nature of crime and criminal responsibility, the criminal justice process, and the professionals in the criminal justice system.

■ CJ 101 INTRODUCTION TO CRIMINOLOGY

(3 class hrs/wk 3 cr) W

Introduces major types of criminal behavior, role careers of offenders, factors that contribute to the production of criminality or delinquency, changes of the law in crime control and treatment processes.

■ CJ 110 INTRODUCTION TO LAW ENFORCEMENT

(3 class hrs/wk 3 cr) F

Explores theories, philosophies and concepts related to role expectations of line enforcement officers. Emphasizes patrol, traffic and public service responsibilities and their relationship to the administration of justice systems.

■ CJ 120 INTRODUCTION TO THE JUDICIAL PROCESS

(3 class hrs/wk 3 cr) W

Surveys the process of justice from arrest to returning the offender to society; the jurisdiction of city, county, state and federal police agencies; and the constitutional rights of individuals in America.

■ CJ 130 INTRODUCTION TO CORRECTIONS

(3 class hrs/wk 3 cr) F/Sp

Examines the total correctional process from law enforcement through administration of justice, probation, prisons and correctional institutions and parole. History and philosophy oriented.

CJ 132 INTRODUCTION TO PAROLE AND PROBATION

(3 class hrs/wk 3 cr) W

Introduces the use of parole and probation as a means of controlling development. Covers contemporary functioning of parole and probation agencies and officers. Includes guest speakers, visual aids and tours.

CJ 198 RESEARCH TOPICS

(1 class hr/wk 1 cr) F/W/Sp

Examines in-depth a selected criminal justice topic. Develops skills in independent research. Corequisite: WR 123 English Composition: Research Paper.

CJ 200 POLICE AND PUBLIC POLICY

(3 class hrs/wk 3 cr)

Explores in-depth the roles of administration of justice practitioners, concentrating on role expectations among the various agencies and the public.

■ CJ 201 JUVENILE DELINQUENCY

(3 class hrs/wk 3 cr) F

Defines and surveys the development and patterns of delinquent behavior, institutional control and treatment, and legal methods of dealing with delinquency.

■ CJ 202 VIOLENCE AND AGGRESSION

(3 class hrs/wk 3 cr) F/W/Sp/Su

Explores and analyzes violence and aggression from biological, psychological and sociological perspectives. Includes topics such as: homicide, suicide, rape, assault, mob violence, terrorism, violence within the family and related phenomenon.

CJ 210 INTRODUCTION TO CRIMINAL INVESTIGATION

(3 class hrs/wk 3 cr) W

Introduces the fundamentals of criminal investigation theory and history, from the crime scene to the courtroom. Emphasizes techniques appropriate to specific crimes.

CJ 216 CRIMINAL JUSTICE MANAGEMENT

(3 class hrs/wk 3 cr)

Examines and analyzes traditional concepts, techniques, policies and operational systems in the police component of the criminal justice system. Special attention is given to contemporary methods of police administration.

■ CJ 220 INTRODUCTION TO SUBSTANTIVE LAW

(3 class hrs/wk 3 cr) F/Sp

Surveys the historical development and philosophy of law and constitutional provisions; the definition and classification of crimes and their application to the system of administration of justice; and the legal research, case law and concepts of law as a social force.

CJ 222 PROCEDURAL LAW

(3 class hrs/wk 3 cr) W

Reviews the development of English common law and U.S. case law; the constitutional and statutory provisions relating to arrest, search and seizure; and the rights and responsibilities of citizens and criminal justice personnel agencies.

■ CJ 226 CONSTITUTIONAL LAW

(3 class hrs/wk 3 cr)

Studies basic principles of the U.S. Constitution, with emphasis on leading Supreme Court cases and the Bill of Rights.

CJ 232 CORRECTIONS CASEWORK

(3 class hrs/wk 3 cr)

Studies approaches to behavior modification through interviewing and counseling. Includes techniques in counseling and interviewing for entry-level practitioners in corrections. Traces development of positive relationships between the client and corrections personnel.

CJ 233 COMMUNITY-BASED CORRECTIONS

(3 class hrs/wk 3 cr) W

Explores philosophy and programs of juvenile and adult probation supervision, after-case parole, half-way homes, work-and educational-release furlough, as well as executive clemency and interstate compact practices. Examines the dilemma of surveillance — custody/control factors vs. supervision/treatment.

CJ 280A CWE CORRECTIONS

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to corrections. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

CJ 280B CWE LAW ENFORCEMENT

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to law enforcement. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

CR Collision Repair

CR 3.511 AUTO COLLISION BASICS

(20 class hrs/wk 12 cr) F

Teaches minor collision damage repair, including pulling out, shrinking and sheet metal corrections.

CR 3.512 AUTO COLLISION PROCEDURES

(20 class hrs/wk 12 cr) W

Covers procedures for color and application, alignment of front sheet metal, and alignment of doors and trunks. Also includes removing and reinstalling windshields and proper sealing of windshield types. Other procedures taught include repairing different types of fiberglass, repairing plastic, and welding of plastic. Prerequisite: 3.511 Auto Collision Basics or instructor approval.

CR 3.513 SHOP PROCEDURES

(20 class hrs/wk 12 cr) Sp

Covers spot repair, blending and clear coating, and color matching fundamentals. Introduces frame and unit body repair, suspension and designs, and vehicle anchoring (pulling and pushing). Prerequisite: CR 3.512 Auto Collision Procedures or instructor approval.

CS Computer Science

CS 133B INTRODUCTION TO BASIC

(4 class hrs/wk 3 cr)

Introduces algorithms and basic programming concepts in high-level computer language—BASIC.

CS 133P INTRODUCTION TO COMPUTER PROGRAMMING: PASCAL

(5 class hrs/wk 4 cr)

Development of structured programs is taught using the programming language Pascal. Prerequisite: BA 171 Introduction to Business Computer Systems.

CS 133U INTRODUCTION TO COMPUTER PROGRAMMING - C

(5 class hrs/wk 4 cr)

Introduces algorithms, program design, data structuring and programming concepts in the C language. The modern programming concepts of data abstraction, reusable code and portable, efficient data structures are emphasized.

CS 145 HARDWARE/SOFTWARE SELECTION & SUPPORT

(3 class hrs/wk 3 cr) Sp

Systematically presents evaluation criteria for selection of microcomputer hardware, software, service and support, including assessment of needs, compatibility of hardware and software, and reliability of dealership support.

CS 161 INTRODUCTION TO COMPUTER SCIENCE I

(5 class hrs/wk 4 cr) F/W/Sp

Presents a history and overview of fundamental concepts of computer science. Includes problem-solving concepts, verification and validation, representation of numbers, machine representation of data, sources of error and algorithm development. Introduces the C++ programming language. Prerequisite: BA 171 Introduction to Business Computer Systems.

CS 162 INTRODUCTION TO COMPUTER SCIENCE II

(5 class hrs/wk 4 cr) W/Sp

Covers software engineering principles, basic data structures and abstract data types (arrays, strings, stacks, queues, trees). Introduces analysis of algorithms, sorting and searching. Uses the C++ programming language. Prerequisite: CS 161 Introduction to Computer Science I.

CS 217 INTRODUCTION TO COBOL PROGRAMMING

(5 class hrs/wk 4 cr) Sp

Introduces the student to the task of developing commercial applications using structured design techniques, the syntax of the 85 ANSI standard COBOL language, the development of the structured design into the COBOL language program and the documentation of the completed program. Prerequisite: CS 161 Introduction to Computer Science I or one major programming language.

CS 233C ADVANCED COBOL PROGRAMMING

(5 class hrs/wk 4 cr)

Provides advanced study of the COBOL language emphasizing the use of mass storage files with sequential and random access methods. Prerequisite: CS 217 Introduction to COBOL Programming or knowledge of COBOL Programming.

CS 244 SYSTEMS ANALYSIS & DESIGN

(5 class hrs/wk 4 cr) F

A practice-oriented course with examples, applications and proven techniques that demonstrate systems analysis and design. Actual organization and business settings are used to show how systems concepts can apply to many different types of enterprises. Prerequisite: CS 145 Hardware/Software Selection and Support or instructor approval.

CS 251 COMPUTER ORGANIZATION & ASSEMBLY LANGUAGE PROGRAMMING

(5 class hrs/wk 4 cr) W

Introduces logical organization, computer hardware and assembly language programming. Prerequisite: CS 161 Introduction to Computer Science I.

CS 261 DATA STRUCTURES

(5 class hrs/wk 4 cr) Sp

Includes the topics of complexity analysis, approximation methods, trees, graphs, file processing, binary search trees, hashing and storage management. Prerequisite: CS 162 Introduction to Computer Science II.

CS 275 DATA BASE SYSTEMS: SQL & ORACLE

(5 class hrs/wk 4 cr) W

Introduces the design, purpose and maintenance of a data base system. Topics covered are the entity-relationship model, relational systems, data definition, data manipulation, query language (SQL) and the Oracle and Paradox data base management environments. Prerequisite: CS 161 Introduction to Computer Science I.

CS 279 NETWORK MANAGEMENT (NOVELL)

(3 class hrs/wk 3 cr) F

Through the use of lectures, reading and access with supervisor privileges to a Local Area Network system running Novell's operating system, students learn to maintain a network. Covers printers, users and the installation of software packages. Prerequisite: CS 251 Computer Organization and Assembly Language Programming or instructor approval.

CS 280 CWE DATA PROCESSING

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to data processing. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

COURSE DESCRIPTIONS

CS 2.580 COMPUTER LITERACY

(3 class hrs/wk 3 cr)

Introduces computers and computer applications. Course uses 20 half-hour television sessions as the principal instructional medium, combined with some practical hands-on experience with microcomputers.

CS 2.589 READING & CONFERENCE: DATA PROCESSING

(1-20 class hrs/wk 1-10 cr)

Individualized course covering subject areas of particular interest to the student or areas where additional work is needed. Note: Number of credits is determined by amount of time spent.

CSS Crop Science

CSS 105 SOILS AND MAN

(3 class hrs/wk 3 cr) Sp

Soil resources in relation to environmental planning and sound ecological principles of land use. Includes examples and case studies involving soil problems and limitations in land use, pollution control and ecological aspects of production. One field trip. Independent project required.

CSS 200 PRINCIPLES OF CROP SCIENCE

(5 class hrs/wk 4 cr) Sp

Course includes the fundamental principles, concepts and illustrative facts concerning seedbed preparation, planting, fertilizing, irrigation, harvesting, storage, processing and marketing of cultivated crops. It also includes pest management, crop rotations, quality control and crop improvement. The lecture is designed to provide the student with background knowledge of common agricultural crops. The lab experience gives students practical applications in plant structure and growth; crop, weed, insect and disease identification; and the various cultural practices.

D Dance

D 185, 186, 187 BEGINNING BALLET

(1 class hr/wk 1 cr) F/W/Sp

Introduces the basic concepts of body alignment, terminology and movement sequences. Corequisite: D 192 Dance Lab

D 192 DANCE LAB

(3 class hrs/wk 3 cr)

Lab for D 185, 186, 187 Beginning Ballet. Note: May be repeated for up to six credits.

D 285, 286, 287 INTERMEDIATE BALLET

(1 class hr/wk 1 cr) F/W/Sp

Continues the work on basic concepts of body alignment, terminology and movement sequences. Corequisite: D 292 Dance Lab.

D 292 DANCE LAB

(3 class hrs/wk 3 cr)

Lab for D 285, 286, 287 Intermediate Ballet. Note: May be repeated for up to six credits.

DA Dental Assistant

DA 5.453 DENTAL PATHOLOGY

(2 class hrs/wk 2 cr) Sp

Studies common pathological diseases, injured and normal tissue and developmental anomalies. Prerequisite: BI 4.220, 4.221 Integrated Basic Science I, II.

DA 5.461 DENTAL RADIOLOGY I

(2 class hrs/wk 2 cr) F

The first of a three-term sequence introducing the principles and hazards of radiation, including safety factors, processing of film, operation of x-ray equipment and anatomical landmarks.

DA 5.462 DENTAL RADIOLOGY II

(3 class hrs/wk 2 cr) W

Continues and reviews DA 5.461 Dental Radiology I. Introduces x-ray techniques and patient considerations, emphasizing production of x-rays using manikins and patients. Prerequisite: DA 5.461 Dental Radiology I.

DA 5.463 DENTAL RADIOLOGY III

(2 class hrs/wk 1 cr) Sp

Provides a concentrated clinical application of dental radiographic procedures. Prerequisite: DA 5.462 Dental Radiology II.

DA 5.484 DENTAL MATERIALS I

(4 class hrs/wk 3 cr) W

Includes an introduction to the physical and biological characteristics of dental materials, structure and properties of dental materials and categories of dental materials. Dental cements and dental restorative materials are covered.

DA 5.485 DENTAL MATERIALS II

(4 class hrs/wk 3 cr) Sp

Continues DA 5.484 Dental Materials I, covering materials used in prosthodontic and laboratory procedures such as impression materials, plaster materials and waxes. Prerequisite: DA 5.481 Dental Materials I.

DA 5.488 EXPANDED DUTIES I

(3 class hrs/wk 2 cr) W

Introduces expanded duties of dental assisting, as delegated by the Oregon State Board of Dental Examiners, and provides practical application in the laboratory.

DA 5.489 EXPANDED DUTIES II

(3 class hrs/wk 2 cr) Sp

Continues Expanded Duties I (DA 5.488), covering the remaining expanded functions with emphasis on laboratory and practical application in the clinic. Prerequisite: DA 5.488 Expanded Duties I.

DA 5.491 DENTAL OFFICE RECORDS

(1 class hr/wk 1 cr) F

Introduces dental office records, patient reception, appointment scheduling, record maintenance, financial arrangements, computer use in dental offices, coordination and supply control, and OSHA guidelines.

DA 5.492 OFFICE EMERGENCIES

(1 class hr/wk 1 cr) Sp

Provides familiarization with various emergencies and treatment, including drugs. Emphasizes the responsibility of the dental office team to be prepared for emergencies.

DA 5.494 CLINICAL PRACTICE I

(5 class hrs/wk 4 cr) F

First course of a three-term sequence that introduces the student to basic dental assisting tasks, including sterilization and disinfection, patient reception, anesthesia, suctioning and charting. Student begins experience in the campus dental clinic.

DA 5.495 CLINICAL PRACTICE II

(6 class hrs/wk 4 cr) W

Second course in three-term sequence. Familiarizes students with basic dental assistant tasks, restorative procedures and instrumentation. The student gains more advanced clinical experience in the campus dental clinic. Prerequisite: DA 5.494 Clinical Practice I.

DA 5.496 CLINICAL PRACTICE III

(6 class hrs/wk 4 cr) Sp

Third course in three-term sequence. Continues emphasis on basic dental assisting tasks, restorative procedures and instrumentation. The various dental specialties are introduced. The student continues to gain clinical experience in the campus dental clinic. Prerequisite: DA 5.495 Clinical Practice II.

DA 5.497 DENTAL HEALTH EDUCATION I

(1 class hr/wk 1 cr) F

First course of a three-term sequence emphasizing concepts and principles of patient education, including oral hygiene, preventive dentistry, techniques for communication and motivating the patient. Includes pre-clinical sessions for actively applying principles of dental health education.

DA 5.498 DENTAL HEALTH EDUCATION II

(1 class hr/wk 1 cr) W

Second course in three-term sequence. Involves the student with community projects within the school system and stresses principles of communication and patient motivation. Student continues to study control of dental disease by preventive methods. Evaluation and assessment of instructional materials for various age levels (preschool through geriatric) are included. Prerequisite: DA 5.497 Dental Health Education I.

DA 5.499 DENTAL HEALTH EDUCATION III

(1 class hr/wk 1 cr) Sp

Third course in a three-term sequence. Emphasizes nutritional information applied to good oral health, including nutrients, basic four food groups, food diaries and nutritional analysis. Principles learned in DA 5.497 Dental Health Education I and DA 5.498 Dental Health Education II are applied in the campus clinic. Prerequisite: DA 5.498 Dental Health Education II.

DA 5.500 ORAL ANATOMY

(2 class hrs/wk 2 cr) F

Covers anatomy and histology of the teeth and their supporting structures and the function of oral structures.

DA 5.510 OFFICE PRACTICUM

(24 class hrs/wk 8 cr) Su

Provides the dental assisting student with work experience closely paralleling the field of study. Emphasizes building skills in various dental assisting procedures.

DA 5.515 OFFICE PRACTICUM SEMINAR

(1 class hr/wk 1 cr) Su

A series of seminars in which students share work-related experiences with the instructor and fellow students. Students also receive information pertaining to employability skills, basic planning, basic economics and resume preparation. Course includes overall review of the Dental Assistant Program.

DR Drafting

DR 4.100 BASIC PRINT READING

(3 class hrs/wk 1-2 cr) F/W/Sp

Provides job-related skills in interpreting scale drawings and symbols and in preparing idea-explanation sketches. An individualized course for vocational students within occupational programs.

DR 4.117 GEOMETRIC TOLERANCING

(4 class hrs/wk 3 cr) F

An intermediate-level course for drafters, technicians and engineers. Covers the application of modern dimensioning and tolerancing. Geometric dimensioning and tolerancing provides uniform international interpretation of engineering drawings. Course utilizes updated and expanded practices of the latest (1982) issue of the American National Standards Institute on dimensioning and tolerancing. The U.S. standard employs the symbology of the International Standards Organization. Prerequisite: 12 college credits in drafting or instructor approval.

DR 4.123 ILLUSTRATION

(6 class hrs/wk 4 cr)

Introduces the techniques and skills involved in graphic production of illustrations for brochures, catalogs and service manuals. Includes production of detailed isometric drawings; exploded assembly drawings; and pencil, ink and color assignments. Prerequisite: DR 4.124 Technical Drawing I or instructor approval.

DR 4.124 TECHNICAL DRAWING I

(3 class hrs/wk 2 cr) F/W/Sp

Provides instruction and drafting practice related to basic graphic communication and interpretive needs of industrial, occupational and technical students.

DR 4.128 DRAFTING FUNDAMENTALS

(6 class hrs/wk 4 cr) F

Introduces the basic attitudes, knowledge and skills required of an engineering technician or drafter. Course builds skills and knowledge in line language, lettering and technical sketching; the use of drafting equipment, print machines and various drafting media; and basic types of drawing. Corequisite: MTH 97 Practical Geometry.

DR 4.131 DRAFTING I

(6 class hrs/wk 4 cr) W

Provides basic skills and knowledge in drafting techniques. Includes the use and application of drafting instruments, dimensioning techniques, orthographic projection, pictorial drawings, fasteners and machine finishes. Prerequisite: DR 4.128 Drafting Fundamentals. Corequisite: MTH 111T College Algebra: Technical; WR 115 Introduction to Writing.

DR 4.132 DRAFTING II

(6 class hrs/wk 4 cr) Sp

Continues work on concepts introduced in DR 4.131 Drafting I. Emphasizes auxiliary views, section views, tolerances, inking and metric dimensioning. Prerequisite: DR 4.131 Drafting I. Corequisite: MTH 112T Trigonometry: Technical.

DR 4.133 PRODUCTION METHODS & MATERIALS

(5 class hrs/wk 4 cr) Sp

Fundamental course in the materials and processes used in the construction and manufacturing industries, providing familiarity with terminology, tools, equipment, standards and materials. Prerequisite: DR 4.131 Drafting I; WR 121 English Composition. Corequisite: WR 198 Independent Studies: Research Writing.

◆ DR 4.139 INTRODUCTION TO CAD

(6 class hrs/wk 4 cr) F/W/Sp

A course for drafters, technicians and engineers in the application and functions of computer-aided drafting. Emphasizes hands-on operation of several software/hardware applications of CAD systems. Prerequisite: 12 college credits in drafting or instructor approval.

DR 4.140 INTRODUCTION TO AUTOLISP

(6 class hrs/wk 4 cr) W

A CAD programming course to assist CAD technicians in upgrading their skills in CAD programming and menu customization. Prerequisite: 12 credits college-level drafting or DR 6.223 C.A.D.D., or DR 4.139 Introduction to CAD or instructor approval.

DR 4.141 ADVANCED MACHINE DRAFTING

(6 class hrs/wk 3 cr) F

Advanced course in the preparation of various machine working drawings. Emphasizes speed and accuracy in preparation of layouts, assembly and detail drawings. Prerequisite: DR 4.132 Drafting II. Corequisite: MTH 112T Trigonometry: Technical; DR 4.133 Production Methods & Materials.

DR 4.142 ADVANCED ARCHITECTURAL DETAILING

(6 class hrs/wk 3 cr) W

Advanced course in the preparation of various architectural working drawings. Emphasizes construction details, planning, site layout and architectural styles. Prerequisite: DR 4.132 Drafting II; DR 4.133 Production Methods & Materials.

COURSE DESCRIPTIONS

DR 4.143 ELECTRONIC DRAFTING

(6 class hrs/wk 3 cr) W

Advanced course in the preparation of various electronics drawings and schematics. Emphasizes component recognition, graphic symbols, drawing types and drafting techniques used in the electronics industry. Prerequisite: DR 4.132 Drafting II; DR 4.133 Production Methods & Materials; PH 4.310 Introductory Physics; EE 6.336 Technical Electricity I.

DR 4.148 PRACTICAL DESCRIPTIVE GEOMETRY

(4 class hrs/wk 3 cr) F

Course in spatial graphics for the drafting and engineering technician. Includes design problems incorporating auxiliary views, true length of lines, true size and shape of angles-planes, and points of intersection. Development from point-line-plane through the use of revolution and auxiliary projection is included. Prerequisite: DR 4.132 Drafting II. Corequisite: MTH 112T Trigonometry: Technical.

DR 4.149 APPLIED MECHANICS

(3 class hrs/wk 3 cr) W

Basic course in elementary statics and engineering mechanics for drafting technicians. Emphasizes graphical and analytical solutions to engineering problems, vector analysis and processes for problem solving. Prerequisite: PH 4.310 Introductory Physics; MTH 112T Trigonometry: Technical.

DR 6.205 CIVIL DRAFTING I

(6 class hrs/wk 3 cr) W

Introduces drafting practices and problems related to the civil engineering field. Emphasizes land survey drawings, legal descriptions, mapping and residential design. Prerequisite: DR 4.132 Drafting II; CEM 221 Plane Surveying.

DR 6.206 CIVIL DRAFTING II

(6 class hrs/wk 3 cr) Sp

Advanced course in drafting related to the civil engineering field. Emphasizes preparing drawings for constructing a variety of structures. Includes discussions of piping systems, highway structures, dams, roads, bridges and other structures as an introduction to civil engineering structures. Prerequisite: DR 4.132 Drafting II; DR 4.133 Production Method and Materials.

DR 6.222 FUNDAMENTALS OF CAD IN DRAFTING/ENGINEERING

(6 class hrs/wk 3 cr) F/W/Sp

Introductory course for students with minimal drafting skills; promotes student progress in the use of basic drafting fundamentals and introductory CAD applications. Topics include standard drafting fundamentals, basic CAD operations and CAD system configurations. Prerequisite: MTH 65 Elementary Algebra.

◆ DR 6.223 C.A.D.D.

(6 class hrs/wk 4 cr) Sp

Advanced course for drafting/civil engineering technicians. Uses computer methods and CAD system techniques for analytical problem solutions and design/drafting graphics production. Prerequisite: BA 2.562 Intro to Hard Disk Management; BA 1100 Using the PC: DOS; MTH 111T College Algebra: Technical; OA 121A Typing I: Keyboarding/computers.

DR 6.224 DRAFTING/ENGINEERING DESIGN

(6 Class hrs/wk 3 cr) Sp

Advanced course for drafting/engineering technicians, with emphasis on the design process and practical design experience of civil and manufacturing problems. Students develop engineering designs using contemporary techniques and practices and produce data, drawings and presentations using reference material and problem-solving techniques. Prerequisite: Department approval or four terms completed in Civil Engineering or Drafting Technology.

EC Economics

■ EC 115 OUTLINE OF ECONOMICS

(4 class hrs/wk 4 cr) F/W/Sp

Emphasizes major economic activities such as supply and demand, fiscal policies of the United States, Federal Reserve functions, unemployment and international trade.

■ EC 201 PRINCIPLES OF ECONOMICS I

(3 class hrs/wk 3 cr) F

Introduces American capitalism, national income accounting, employment theory and fiscal policy.

■ EC 202 PRINCIPLES OF ECONOMICS II

(3 class hrs/wk 3 cr) W

Introduces monetary policy, economics of the firm and resource allocation. Prerequisite: EC 201 Principles of Economics I.

■ EC 203 PRINCIPLES OF ECONOMICS III

(3 class hrs/wk 3 cr) Sp

Introduces current economic problems, international economics and the world economy. Prerequisite: EC 202 Principles of Economics II.

■ EC 213 PRINCIPLES OF ECONOMICS

(4 class hrs/wk 4 cr) F/W

A microeconomics course. Covers supply and demand; prices and wages; market structures; the economic role of government; and the economics of energy, environment and poverty.

■ EC 214 PRINCIPLES OF ECONOMICS

(4 class hrs/wk 4 cr) W/Sp

A macroeconomics course. Covers theories of unemployment and inflation, money and banking, international trade, economic growth and alternative systems.

■ EC 215 ECONOMIC DEVELOPMENT IN THE U.S.

(3 class hrs/wk 3 cr) W

Provides historical study of U.S. economic institutions, including industry, agriculture, commerce, transportation, labor, finance and the economic program of the United States.

■ EC 216 INTRODUCTION TO LABOR ECONOMICS

(3 class hrs/wk 3 cr) F

Presents first, detailed look at the theory and policy of manpower economics, role of trade unions, the causes of unemployment, the problems of maintaining full employment, negotiation techniques, and methods of settling labor disputes, including grievance procedures, conciliation and arbitration.

■ EC 220 CONTEMPORARY U.S. ECONOMIC ISSUES

(3 class hrs/wk 3 cr) Sp

Applies economic principles to selected issues affecting the U.S. economy, including poverty, pollution and urbanization. Prerequisite: Instructor approval.

ED Education

ED 123 TUTOR AND INSTRUCTIONAL PRACTICES

(2 class hrs/wk 1 cr) F/W/Sp

Introduces student tutors to effective tutoring strategies and college study skills. Also presents an overview of how adults learn. Prerequisite: Employment by LBCC tutorial program or permission of the Tutor Coordinator.

ED 125 TUTORING ADULTS: SPECIAL NEEDS

(1-3 class hrs/wk 1-3 cr) F/W/Sp

Teaches skillful and effective tutoring method of use in working with students who have disabilities. Covers how to establish a positive tutoring environment through good communication skills and how to tutor students with learning disabilities. The laboratory portion of this course is a supervised practicum.

ED 207 BEGINNING LEADERSHIP

(3 class hrs/wk 3 cr) F

Overview of leadership theory, styles and skills. Provides skill-building exercises, professional networking techniques, group process and team-work methods, basic communication techniques, prioritizing, goal setting and other basic information necessary for those anticipating leadership roles.

ED 208 COMMUNITY COLLEGE TUTORING

(1-5 class hrs/wk 1-3 cr) F/W/Sp/Su

Provides experience and instruction in tutoring students who are having difficulty with the content of particular disciplines.

ED 209 LEADERSHIP PRACTICUM

(3 class hrs/wk 3 cr) W

Students explore and develop leadership potential by gaining an understanding of styles and aspects of leadership and leadership theory and practice. Provides structured opportunities for the individual to experience leadership roles.

ED 210B RECERTIFICATION PRACTICUM

(15 class hrs/wk 6 cr) F/W/Sp

Assigns teachers who have been previously certified to an accredited school to reorient them with the methodology of teaching. The main objective is to enable the teacher to re-enter the classroom with current information and experience. Students also meet 10 hours during the term in seminar to discuss and assess their practicum.

ED 280A CWE: ADVANCED LEADERSHIP

(3 class hrs/wk 3 cr) Sp

Readings in organizational, motivational and leadership theory. Includes structured field experience.

EE Electronics Engineering Technology

EE 6.316 INTRODUCTION TO ELECTRONICS

(1 class hr/wk 1 cr) F

Preparatory course designed to help the student better understand his or her role in electronics. The Electronics Program, Cooperative Work Experience and job placement are outlined and discussed. Note: All electronics career students are required to take this course.

EE 6.320 FUNDAMENTALS OF ELECTRONICS

(6 class hrs/wk 4 cr) F

Introduces electricity and electronics, including basic concepts and theories relating to DC and AC electricity. Prerequisite: High school algebra and geometry or equivalent. Corequisite: MTH 111T College Algebra: Technical.

EE 6.321 DC/AC CIRCUIT ANALYSIS

(12 class hrs/wk 8 cr) W

Provides knowledge and use of network analysis techniques relating to DC and AC electricity. Basic skills in oscilloscope, function generator and power supply use also are acquired. Prerequisite: EE 6.320 Fundamentals of Electronics or instructor approval; MTH 111T College Algebra: Technical. Corequisite: MTH 112T College Trigonometry: Technical.

EE 6.322 BASIC SEMICONDUCTORS

(12 class hrs/wk 8 cr) Sp

Covers theory and application of electronic devices, such as semiconductor diodes and BJT/FET transistors. BJT and FET circuit biasing techniques and AC circuit analysis using hybrid parameter equivalents also are studied. Prerequisite: EE 6.321 DC/AC Circuit Analysis or instructor approval.

EE 6.323 ANALOG CIRCUITS

(9 class hrs/wk 6 cr) F

Introduces circuit theory and practical application of linear circuits with and without feedback, some composed of discrete components and some integrated circuits (OP Amps). Prerequisite: EE 6.322 Basic Semiconductors or instructor approval.

EE 6.324 ELECTRONIC COMMUNICATIONS

(9 class hrs/wk 6 cr) W

General survey of communications. Begins with oscillators and tuned circuits; continues through AM, FM and microwave transmitters and receivers; ends with fiber optics and opto-electronics. Prerequisite: EE 6.323 Analog Circuits or instructor approval.

EE 6.325 INTEGRATED SYSTEMS

(9 class hrs/wk 6 cr) Sp

Provides a general survey of electronic integrated systems and robotics, including switching power supplies, transducers, signal conditioning, data recording and control loops. Prerequisite: EE 6.324 Electronic Communications or instructor approval.

EE 6.330 INDUSTRIAL ELECTRICITY

(4 class hrs/wk 3 cr) F/W/Sp

Introduces basic DC electrical theory, safety and meter use. Introduction to single-phase and three-phase concepts and measurements. Prepares the student for basic electrical troubleshooting required in other industrial trades. Prerequisite: MTH 65 Elementary Algebra.

EE 6.334 ELECTRICAL FABRICATION

(1-10 class hrs/wk 1-6 cr)

Prepares students for electronic assembly and fabrication positions. Teaches occupational skills in safety, hand tool use, soldering techniques, basic electricity, meter usage and printed circuit board and integrated circuit manufacturing processes.

EE 6.336 TECHNICAL ELECTRICITY I

(4 class hrs/wk 3 cr) F/W/Sp

Introduces basic DC electrical theory, safety and meter use. Designed to prepare the student for basic electrical troubleshooting required in other industrial trades and EET program. Prerequisite: MTH 65 Elementary Algebra.

EE 6.337 TECHNICAL ELECTRICITY II

(4 class hrs/wk 3 cr) W/Sp

Introduces basic AC measurements and calculations. Includes basic theory and practical application of AC motors, alternators and motor controls. Prerequisite: EE 6.336 Technical Electricity I; MTH 55 Advanced Occupational Mathematics.

EE 6.338 TECHNICAL ELECTRICITY III

(4 class hrs/wk 3 cr) Sp

Studies the operational theory of motors, generators, transformers, batteries and industrial motor controls. Provides entry-level and technical information required for the electrical trades. Prerequisite: EE 6.336, EE 6.337 Technical Electricity I and II; MTH 97 Practical Geometry.

EE 6.343 ELECTRONIC LAB SKILLS I

(2 class hrs/wk 1 cr) F

Basic course in electronic lab skills. Covers concepts of safety, VOM usage, component identification, wire terminal and component soldering, circuit board loading, wire wrap and circuit board desoldering. Corequisite: EE 6.320 Fundamentals of Electronics.

EE 6.344 ELECTRONIC LAB SKILLS II

(2 class hrs/wk 1 cr) W

Electronic lab skills course in oscilloscope and function generator usage, printed circuit board layout, fabrication, loading and soldering. Includes a term project in which a power supply is fabricated per schematic and tested per specification. Prerequisite: EE 6.343 Electronic Lab Skills I.

EE 6.346 DIGITAL CIRCUITS I

(8 class hrs/wk 5 cr) F

Develops an understanding of number systems and digital codes through logic gates and combinational logic circuits. Investigates the use of Boolean Algebra and Karnaugh maps in simplifying logic circuits. Prerequisite: EE 6.322 Basic Semiconductors or instructor approval.

EE 6.347 DIGITAL CIRCUITS II

(8 class hrs/wk 5 cr) W

Covers flip-flops and sequential logic and their application to counters, shift registers, arithmetic circuits and, finally, to computing systems. Teaches how to use the logic analyzer and its usefulness in analyzing sequential circuits. Prerequisite: EE 6.346 Digital Circuits I or instructor approval.

EE 6.349 BASIC MICROPROCESSORS

(8 class hrs/wk 5 cr) Sp

Introductory class on microprocessors and microcomputers and their associated subsystems and software. Covers 68HC 11 single chip microprocessor, support systems, peripherals and mass storage devices. Prerequisite: EE 6.347 Digital Circuits II, Programming Language or instructor approval.

EE 6.554 TECHNICAL FIELD PROJECTS

(1-9 class hrs/wk 1-3 cr)

Provides an in-depth study of particular aspects of electronics as determined by individual student's interests. Prerequisite: EE 6.322 Basic Semiconductors.

EN Developmental English

EN 1.126 DEVELOPMENTAL ENGLISH: INDIVIDUALIZED

(3 class hrs/wk 0-3 cr) F/W/Sp/Su

Helps students improve sentence structure and usage in a self-paced program. Number of credits earned is dependent upon demonstrated mastery of content. Students learn to identify subjects and verbs and to use appropriate sentence structure, subject-verb agreement, pronouns, punctuation and capitalization. These skills are applied in writing exercises.

EN 1.130 DEVELOPMENTAL ENGLISH

(3 class hrs/wk 3 cr) F/W/Sp

Helps students improve sentence structure and usage in an interactive classroom environment. Pre-writing skills are improved through the study of subjects and verbs, sentence structure, correct usage, punctuation and capitalization. Students practice these skills in writing exercises.

EN 1.157, 1.159 ACADEMIC ENGLISH: NON-NATIVE SPEAKERS

(4 class hrs/wk 3 cr) F/W/Sp

Class for non-native speakers of English. Integrates reading, writing, listening and speaking skills around contemporary issues. Prerequisite: Placement is made by test results.

ENG English

➤ ENG 104 INTRODUCTION TO LITERATURE: FICTION

(3 class hrs/wk 3 cr) F/W/Sp

Examines fiction through the study of the novel and the short story. Note: Need not be taken in sequence.

➤ ENG 105 INTRODUCTION TO LITERATURE: DRAMA

(3 class hrs/wk 3 cr) F/W/Sp

Introduces Western drama from its origin in ancient Greece to today's theatre, stressing conventions of drama as both a literary and performing art. Note: Need not be taken in sequence.

➤ ENG 106 INTRODUCTION TO LITERATURE: POETRY

(3 class hrs/wk 3 cr) F/W/Sp

Studies poetry drawn from American, English and world literature. Works are read in entirety when possible, with emphasis on elements such as structure, style, imagery, figurative language and musical devices. Note: Need not be taken in sequence.

➤ ENG 107, 108, 109 LITERATURE OF THE WESTERN WORLD

(3 class hrs/wk 3 cr) F/W/Sp

Discusses masterpieces of Western literature from the ancient world to the present. EN 107: The Classical Ages; EN 108: The Middle Ages to the Age of Reason; EN 109: 18th Century to the Present. Note: Need not be taken in sequence.

➤ ENG 112 SPECULATIVE LITERATURE

(3 class hrs/wk 3 cr)

Explores science fiction, fantasy and speculative futures through popular fiction. Discusses content, literary styles and techniques.

➤ ENG121 MYSTERY FICTION

(3 class hrs/wk 3 cr)

Provides reading and analysis of mystery novels, including history and criticism, plot, milieu, theme and style.

➤ ENG 201, 202, 203 SHAKESPEARE

(3 class hrs/wk 3 cr) F/W/Sp

Studies major plays of Shakespeare, including the structure, characterization, setting and imagery used in comedies, tragedies, histories and poems. Note: Need not be taken in sequence.

➤ ENG 204, 205, 206 SURVEY OF ENGLISH LITERATURE

(3 class hrs/wk 3 cr) F/W/Sp

Studies representative works in English literature for their inherent worth and for their reflection of the times in which they were written. ENG 204, ballads through Milton; ENG 205, Defoe through the Romantics; ENG 206, Browning through Joyce. Note: Need not be taken in sequence.

➤ ENG 207, 208, 209 LITERATURE OF THE NON-WESTERN WORLD

(3 class hrs/wk 3 cr)

ENG 207 Literature of Asia, representative works of poetry, prose and drama; ENG 208 Literature of Africa, literary works of both tribal and colonial origin; ENG 209 Literature of the Americas, works of Hispanic, Native American and Afro-American origin (excluding the U.S. and Canada). Note: Need not be taken in sequence.

➤ ENG 211 LITERATURE OF ATHLETICS

(3 class hrs/wk 3 cr)

Studies the literature of sports and its reflection of our culture and world. Focuses mostly on works of 20th century American writers. Special emphasis is placed on evolved myths of the athlete and of athletics.

COURSE DESCRIPTIONS

► **ENG 222 IMAGES OF WOMEN IN LITERATURE**

(3 class hrs/wk 3 cr)

Surveys various images of women as presented in literature. Examines the roles of women in contemporary cultures.

► **ENG 250 INTRODUCTION TO MYTHOLOGY**

(3 class hrs/wk 3 cr)

Introduces and studies the world's mythologies, including their meanings, their impact on societies and their similarities.

► **ENG 253, 254, 255 SURVEY OF AMERICAN LITERATURE**

(3 class hrs/wk 3 cr) F/W/Sp

Analyzes representative U.S. authors and identifies major literary periods in order to understand and appreciate the literary expression of American culture. ENG 253, beginning of American literature to Transcendentalism; ENG 254, Transcendentalism through Realism and Naturalism; ENG 255, Naturalism to the present. Note: Need not be taken in sequence.

► **ENG 260 INTRODUCTION TO WOMEN WRITERS**

(3 class hrs/wk 3 cr)

Introduces major works of literature by women authors. Discusses history, writing and publication problems and appreciation of female insights into human experience in fiction, drama and poetry.

► **ENG 275 BIBLE AS LITERATURE**

(3 class hrs/wk 3 cr)

Surveys selected Biblical readings that acquaint students with literary forms, styles and content of Biblical materials. Points out our literary and artistic indebtedness to the Biblical heritage.

ENGR Engineering

ENGR 111 ENGINEERING ORIENTATION I

(5 class hrs/wk 4 cr) F

Covers engineering as a profession, historical development, ethics, curricula and engineering careers. Introduces problem analysis and solutions, data collection, accuracy and variability. Prerequisite or Corequisite: MTH 111 College Algebra.

ENGR 112 ENGINEERING ORIENTATION II

(5 class hrs/wk 4 cr) W

Presents systematic approaches to engineering problem solving using computers. Provides detailed look at engineering communications. Develops engineering laboratory skills and management techniques. Prerequisite: MTH 111 College Algebra.

ENGR 201 ELECTRICAL FUNDAMENTALS

(5 class hrs/wk 4 cr) F

Covers fundamentals circuit analysis, including node and mesh analysis, superposition and Thevenin and Norton's Theorem. Introduces op-amps, capacitors and inductors. Covers AC circuit analysis techniques. Prerequisite: MTH 251 Calculus.

ENGR 202 ELECTRICAL FUNDAMENTALS

(5 class hrs/wk 4 cr) W

Covers Fourier Series representation of periodic functions, Sinusoidal steady state and analysis of three-phase circuits; introduces mutual inductance and transformers; looks at resonant circuits. Continuation of op-amp circuits. Prerequisite: MTH 252 Calculus; ENGR 201 Electrical Fundamentals.

ENGR 203 ELECTRICAL FUNDAMENTALS

(5 class hrs/wk 4 cr) Sp

Covers transient circuit analysis - RL, RC, RLC. Introduces LaPlace Transform and its use in circuit analysis, the transfer function, Bode diagram and two port networks. Prerequisite: MTH 253 Calculus; ENGR 202 Electrical Fundamentals.

ENGR 211 STATICS

(4 class hrs/wk 4 cr) F

Introduces engineering statics, including the laws of mechanics, vector algebra, moments, force systems, equilibrium, trusses, beams, cables, friction, centroids, moments of inertia, and virtual work. Prerequisite: MTH 251 Calculus.

ENGR 212 DYNAMICS

(4 class hrs/wk 4 cr) W

A study of the dynamics of rigid bodies, including the kinematics and kinetics of single particles and systems of particles, linear momentum, moments of momentum, relative motion, energy and impulse momentum. Prerequisite: ENGR 211 Statics; MTH 252 Calculus.

ENGR 213 STRENGTH OF MATERIALS

(4 class hrs/wk 4 cr) Sp

Introduces the mechanics of deformable bodies in equilibrium, treating the internal effects of external forces upon bodies and the interrelationships between stress and strain. Prerequisite: ENGR 211 Statics; MTH 252 Calculus.

ENGR 245 ENGINEERING GRAPHICS & DESIGN

(6 class hrs/wk 4 cr) Sp

Graphic communication, including multiview and pictorial representation, conceptual design, spatial analysis, engineering applications, graphic analysis and solutions, and industrial procedures. Prerequisite or Corequisite: MTH 111 College Algebra.

ENGR 271 DIGITAL LOGIC DESIGN

(5 class hrs/wk 4 cr) Sp

Provides an introduction to digital logic and state machine design. Covers logic design, including logic gates, gate minimization methods and design with standard medium scale integration (MSI) logic circuits. Includes basic memory elements (flip-flops) and their use in simple-state machines. Prerequisite: ENGR 201 Electrical Fundamentals; MTH 251 Calculus.

FA Farrier Science

FA 8.200 FARRIER SCIENCE

(34.5 class hrs/wk 22 cr) F/W/Sp

Provides the basic knowledge and skills to enter the farrier, or horseshoeing, trade. Students acquire entry-level knowledge and skills in the areas of horse anatomy and physiology, hoof care, hoof disorders and diseases, use of hand tools, basic forging, regular horseshoeing and corrective shoeing. Note: Fourteen-week class.

FN Foods & Nutrition

FN 225 NUTRITION

(4 class hrs/wk 4 cr) F/W/Sp

Introduces nutrients, their functions, sources and effects of deficiency and toxicity. Examines current recommendations for Americans and topics of current interest. Includes digestion, metabolism and changing nutrient needs through the life cycle. Provides opportunity to evaluate personal dietary intake for three days. Note: A background in chemistry is recommended.

GC Graphic Communications

GC 3.156 ELECTRONIC IMAGING II

(6 class hrs/wk 3 cr) Sp

Continues work on the Macintosh computer. Includes advanced drawing programs, charts and graphs, bulletin boards, modems, scanners and drawing pads; other hardware and software applications; and the use of service bureaus. Prerequisite: AA 229 Electronic Imaging I or commercial Macintosh experience.

GC 3.167 OFFSET DUPLICATOR OPERATION

(6 class hrs/wk 4 cr) Sp

Introduces the theory and practice of offset lithography: press operation, ink and water systems; Pantone system of ink mixing; use of presensitized printing plates; safety procedures. Projects are assigned and critiqued. Prerequisite: GC 3.169 Image Assembly and Platemaking.

GC 3.169 IMAGE ASSEMBLY AND PLATEMAKING

(6 class hrs/wk 4 cr) W

Teaches preparation of line and halftone negatives for offset reproduction; single and multiple color imposition; single and multiple page imposition; use of screen tints to produce intermediate color values; color proofing techniques; and production of plates for the offset press. Prerequisite: AA 120 Art and Copy Preparation; AA 263 Reproduction Photography I.

GC 3.181 SPECIAL PROJECTS

(2-10 class hrs/wk 1-5cr) F/W/Sp

In coordination with the instructor, the student selects projects that provide practical experience within the major field. Note: May be taken for a maximum of 6 credits. Prerequisite: Instructor approval.

GEOG..... Geography

■ **GEOG 121 PHYSICAL GEOGRAPHY**

(4 class hrs/wk 4 cr)

Includes the major physical subsystems (atmosphere, geosphere, biosphere) of the natural environment, their nature, expression and spatial distribution.

■ **GEOG 190 ENVIRONMENTAL STUDIES**

(3 class hrs/wk 3 cr)

Introduces representative problems in man's relationship with the environment. Emphasizes significant problems occurring in the Pacific Northwest, but others, typical of the United States as a whole, are included.

■ **GEOG 202, 203, 204 WORLD REGIONAL GEOGRAPHY**

(3 class hrs/wk 3 cr) F/W/Sp

Studies natural environments, cultural landscapes and human activities; emphasizes the influence of geographical conditions on human affairs. GEOG 202, Latin America/Caribbean; GEOG 203, Asia; GEOG 204, Africa/Middle East.

■ **GEOG 207 GEOGRAPHY OF OREGON**

(3 class hrs/wk 3 cr)

Surveys Oregon landforms, climate, natural resources and history of settlement. Makes detailed examination of regions within the state, with emphasis on significant issues in environment and resource use.

GEOG 280 CWE GEOGRAPHY

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to geography. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

GS General Science

● **GS 104, 105 PHYSICAL SCIENCE**

(5 class hrs/wk 4 cr) F/W

Provides liberal-arts students and non-science majors a broad background in physical sciences. GS 104, fundamental principles of physics; GS 105, principles of chemistry. Note: May not be taken if six or more hours of college-level chemistry or physics have been completed. Students who plan to take a three-term general physical science lab course sequence must include GS 104 and GS 105 as part of that sequence. There is no restriction on the order in which the courses are taken. Prerequisite: MTH 60 Beginning Algebra or equivalent.

GS 106 PHYSICAL SCIENCE

(5 class hrs/wk 4 cr) Sp

Provides liberal arts students and non-science majors a broad background in physical sciences. Topics include principles of nuclear energy, astronomy, meteorology and earth science. Field trips highlight the topics discussed. Note: Students who plan to take a three-term general physical science lab course sequence must include GS 104 and GS 105 as part of that sequence. There is no restriction on the order in which the courses are taken.

● **GS 107 ASTRONOMY**

(5 class hrs/wk 4 cr) F/Sp

Introduces rudiments of astronomy, including studies of the solar system, our galaxy and the universe. Laboratory exercises include independent observational activities. Note: Students who plan to take a three-term general physical science lab course sequence must include GS 104 and GS 105 as part of that sequence. There is no restriction on the order in which the courses are taken.

● **GS 108 OCEANOGRAPHY**

(5 class hrs/wk 4 cr) Sp

Introductory lab science course in oceanography that examines the four major categories of oceanographic study: geological, physical, chemical and biological. Emphasizes the geological and geophysical aspects of the seafloor; physical and chemical properties of seawater, waves, tides, ocean circulation and currents; marine ecosystems; and ocean utilization. Note: May substitute for GS 106 for student requiring a three-term sequence.

GS 151 ENERGY IN SOCIETY

(3 class hrs/wk 3 cr) Sp

Surveys the nature, history and use of energy. Analyzes traditional and alternative energy sources and their scientific, technical, environmental and economic aspects.

GS 152 SCIENCE, TECHNOLOGY & SOCIETY

(3 class hrs/wk 3 cr) F/W/Sp

Investigates the nature of scientific endeavors and analyzes specific science and technology issues that affect societies in the United States and globally.

GS 170 FIELD ECOLOGY

(1-12 class hrs/wk 1-3 cr)

A variety of courses on the biology and ecology of the Northwest. Emphasizes field study of plants, animals, land, water and climate. Includes courses such as Alvord Desert Ecology, Cascade and Crater Lake Ecology, Coastal Ecology and Oregon Old Growth. Note: Most courses involve a weekend trip with pre- and post-trip evening meetings. May be taken as electives by transfer students, but also generally valuable for learning more about the environment.

GS 199 GENERAL SCIENCE: SPECIAL STUDIES

(1-12 class hrs/wk 1-4 cr)

Students desiring to take another General Biology alternative under the same course number or to carry independent studies in the life sciences may do so under this number and receive transferable credits. Note: Students are screened for transferable credit. The number of credits given depends upon the nature of the study and the amount of effort needed to accomplish the task.

GS 280 B CWE PHYSICAL SCIENCE

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to physical science. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

HD Human Development

HD 100 COLLEGE SUCCESS SKILLS

(1-4 class hrs/wk 3 cr) F/W

Focuses on personal development and behaviors that promote success in college. Topics include communication, creative thinking, test anxiety, wellness, goal-setting, learning styles and time management..

HD 116 HUMAN POTENTIAL

(2 class hrs/wk 2 cr)

Builds self-esteem through sharing and celebration of personal preferences.

HD 190 ASSERTIVENESS TRAINING

(1 class hr/wk 1 cr) F/W/Sp

Facilitates the learning of communication skills based on a foundation of respect for self, respect for others and respect from others.

HD 204 ELIMINATING SELF-DEFEATING BEHAVIOR

(3 class hrs/wk 3 cr)

Covers making choices that enhance quality of life, becoming aware of our self-defeating behavior, deciding whether to continue the behavior or change it, and discovering reasons and benefits for choosing this way.

HD 206 COPING SKILLS FOR STRESS

(2 class hrs/wk 2 cr) F/W/Sp

Information about causes and cures of stress from the point of view of self-talk and the power of our minds to reduce the impact of stress. The class is support oriented and is conducted as part lecture and part group process.

HD 208 CAREER PLANNING

(3 class hrs/wk 3 cr) F/W/Sp

Helps define career, develop personal awareness and practice decision making. A combination of lecture and group discussions teaches methods of career selection, emphasizing development as an on-going process.

HD 208A CAREER/LIFE PLANNING

(1-3 class hrs/wk 1-3 cr)

A variable-credit course that helps define careers and identify personal career/life goals.

HD 290 APPLIED ASSERTION

(2 class hrs/wk 2 cr)

Builds on the information and skills introduced in the basic class in assertiveness and focuses on facilitating the application of assertive concepts to the lifestyle of each individual.

HDFS..... Human Development & Family Studies

HDFS 140 CONTEMPORARY AMERICAN FAMILIES

(3 class hrs/wk 3 cr)

Studies the family as an influence in the socialization and general development of individuals. Contemporary family practices, styles and issues as developmental factors are discussed. New ways of approaching family roles are explored.

HDFS 199 EARLY CHILDHOOD EXPERIENCE

(4-5 class hrs/wk 3 cr) W/Sp

Students considering different kinds of careers involving children explore this field through guided experiences in the Family Resource Center and seminar discussions. Students increase knowledge in the areas of discipline, creative activities and child development.

HDFS 200 HUMAN SEXUALITY

(3 class hrs/wk 3 cr)

Studies the anatomical, physiological and sociological aspects of human sexuality throughout the life cycle. Topics of study include contraception, sexual expression, sexually transmitted diseases, pregnancy, childbirth and related topics. Factual information on contemporary issues, such as unconventional sex, sexual violence and sexual problems, is presented. The course follows a gender-based focus and includes cross-cultural material.

HDFS 201 INDIVIDUAL & FAMILY DEVELOPMENT

(3 class hrs/wk 3 cr)

Using a life-span developmental approach, studies individual and family development, dynamics and relationships, both within the family and as part of the larger environment.

HDFS 222 PARTNER RELATIONSHIPS

(3 class hrs/wk 3 cr)

Focuses on interpersonal relationships in a changing society. Love, sexual standards, sexuality, expectations for partner relationships and communication are covered. In addition, the various pressures and stresses (societal, personal, economic, legal and interpersonal) are studied.

HDFS 225 CHILD DEVELOPMENT

(3 class hrs/wk 3 cr)

Provides an introduction to basic issues and current research on growth and development of children within a family context. While concerned with human development through the middle childhood years, special emphasis is placed on the early years, including prenatal and infant development. The course is presented primarily through lectures, with occasional films and guest speakers.

HDFS 226 TIME TO GROW

(3 class hrs/wk 3 cr)

Looks at children from a developmental perspective. This telecourse covers prenatal to adolescent development.

HDFS 242 MANAGING ROLES ACROSS THE LIFESPAN

(1 class hr/wk 1 cr)

Presents information on balancing the demands of school, work and family. Covers the work/family lifestyle, handling stress, communication skills, goal setting and self-esteem.

HDFS 280 CWE EARLY CHILDHOOD DEVELOPMENT

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to early childhood development. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

HE Health

HE 112 EMERGENCY FIRST AID

(10 class hrs/wk 1 cr)

Covers basic first aid information in an attempt to prepare the student to properly administer the necessary immediate care to an injured or suddenly ill person. Note: One-week class.

HE 125 OCCUPATIONAL SAFETY

(3 class hrs/wk 3 cr) F/W/Sp/Su

Introduces accident prevention by developing an awareness of safety practices relating to personnel, design, equipment and maintenance.

HE 201 A LIVING LOOK AT DEATH

(3 class hrs/wk 3 cr)

Covers death as universal concern without universal perspectives. Through a variety of teaching techniques, students are assisted in better understanding this puzzling aspect of life. Focuses primarily on cultural perspectives.

HE 207 STRESS MANAGEMENT

(3 class hrs/wk 3 cr)

Helps students develop a clear understanding of the meaning of stress in their everyday life. Students learn how they react and adjust to stressors. Relaxation techniques are taught and practiced.

HE 250 PERSONAL HEALTH

(3 class hrs/wk 3 cr) F/W/Sp/Su
Surveys health attitudes, outlooks and feelings as they affect the individual, community, nation and world. Emphasizes improving quality of health by providing reliable information to achieve a long and productive life.

HE 252 FIRST AID

(3 class hrs/wk 3 cr) F/W/Sp/Su
Provides first aid instruction and practice in skills that enable students to take care of themselves and to aid others in the event of an accident or illness.

HE 260 FIRST RESPONDER

(40-48 hrs/term 4 cr) F/W/Sp
Course for fire fighters, quick response teams and law enforcement personnel who may be the first on the scene of life-threatening accidents and emergencies. Provides practical skills for at-the-scene treatment of airway problems, cardiac emergencies (CPR), bleeding and shock, and selected medical emergencies. Completers sit for the Oregon Health Division exam.

HE 261 CARDIOPULMONARY RESUSCITATION (CPR)

(9 class hrs/wk 1 cr)
Covers basic life support as taught by the American Heart Association. Note: One-week class.

HE 280 CWE HEALTH

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to health. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

HE 298 INDEPENDENT STUDY: WOMEN'S HEALTH

(3 class hrs/wk 3 cr) W
Explores the special health concerns of women throughout the life cycle, including physiological, psychological and social issues.

HEC.....Home Economics

HEC 100 PERSPECTIVES IN HOME ECONOMICS

(1 class hr/wk 1 cr)
Introduces home economics as a dynamic profession, worldwide in scope, that prepares students to work with individuals and families in a wide variety of business-, education- and human services-related careers. Students identify goals and competencies which serve as a basis for academic and career decisions.

HEC 201 INDIVIDUAL & FAMILY DEVELOPMENT

(3 class hrs/wk 3 cr)
Uses a life-span developmental approach. Studies individual and family development, dynamics and relationships, both within the family and as part of the larger environment.

HMHazardous Materials Management

HM 6.136 ENVIRONMENTAL & HEALTH EFFECTS OF HAZARDOUS MATERIALS

(4class hrs/wk 4 cr) Sp
Covers the effects of hazardous materials on the human body and the environment. Includes toxicology; dose/response relationships; risk assessments; and the longevity, transport, accumulation and transformation of hazardous materials on the environment and the human body. Prerequisite: BI 102 Human Body. Corequisite: CH 123 College Chemistry.

HS.....Human Services

HS 207 ADULT CHILDREN OF DYSFUNCTIONAL FAMILIES

(2 class hrs/wk 2 cr)
Provides educational information and group activities to help students explore issues and concerns developed from being raised in a home or environment where dysfunction was present.

HST History

■ **HST 101 HISTORY OF WESTERN CIVILIZATION**

(3 class hrs/wk 3 cr)
Surveys origins and development of western civilization from ancient times to the height of Medieval civilization. Emphasizes the important influences of Greece, Rome, India and China, as well as Byzantium and Islam to modern times.

■ **HST 102 HISTORY OF WESTERN CIVILIZATION**

(3 class hrs/wk 3 cr)
Surveys the origins and development of western civilization from Medieval times through the Renaissance and Enlightenment periods to the American and French Revolutions.

■ **HST 103 HISTORY OF WESTERN CIVILIZATION**

(3 class hrs/wk 3 cr)
Surveys the origins and development of western civilization from the dawn of the Industrial Revolution in the early 19th century through the struggle between totalitarianism and democracy in the 20th century to the collapse of communism at the start of the 21st century.

HST 150 SCIENCE AND CULTURE IN THE WESTERN TRADITION

(3 class hrs/wk 3 cr)
Surveys the history of western civilization from the perspective of developments in science and technology. Emphasizes the interaction between scientific developments and cultural developments.

■ **HST 157 HISTORY OF THE MIDDLE EAST & AFRICA**

(3 class hrs/wk 3 cr)
Surveys the cultural, social, economic and political development in the Middle East and Africa.

■ **HST 158 HISTORY OF LATIN AMERICA**

(3 class hrs/wk 3 cr)
Surveys the cultural, social, economic and political development in Latin America.

■ **HST 159 HISTORY OF ASIA**

(3 class hrs/wk 3 cr)
Surveys the cultural, social, economic and political development in Asia.

■ **HST 191 CHINA: SOCIETY AND CULTURE TO 1911**

(3 class hrs/wk 3 cr)
Introduces Chinese society and culture from prehistoric times to founding of the Chinese Republic.

■ **HST 192 HISTORY OF CHINA: 20TH CENTURY**

(3 class hrs/wk 3 cr)
Examines the critical events, issues and personalities of twentieth century China.

HST 198 RESEARCH TOPICS

(1 class hr/wk 1 cr)
Examines in-depth history topics for independent research. Corequisite: WR 123 English Composition: Research Paper.

■ **HST 201 HISTORY OF THE UNITED STATES**

(3 class hrs/wk 3 cr)
Studies the exploration and colonization of America, the attainment of independence, the formation of a government under the constitution and subsequent events up to the presidency of Jackson.

■ **HST 202 HISTORY OF THE UNITED STATES**

(3 class hrs/wk 3 cr)
Studies the United States from the Jackson era through the Civil War, Reconstruction and the settlement of the West. Includes ascendancy of industry, the early labor movement and the emergence of the United States as a world power.

■ **HST 203 HISTORY OF THE UNITED STATES**

(3 class hrs/wk 3 cr)
Studies the United States in the 20th century including WWI, the Twenties, the Depression, and WWII in the first half of the century through the Cold War in the second half.

■ **HST 220 LABOR HISTORY**

(3 class hrs/wk 3 cr)
Examines the origins and growth of the labor movement in the U.S. from the colonial period through industrialization and up to the legitimization of organized labor in '30s and '40s. Stresses the impact of industrialization upon labor and its political, economic and ideological consequences.

■ **HST 224 LABOR TODAY**

(3 class hrs/wk 3 cr)
Examines the continuing interactions among unions, management and government and the changing conditions of work due to technological development and the globalization of production. Emphasizes the problems resulting from these interactions and from changes in current economy, such as wages and managerial authority.

■ **HST 240 OREGON HISTORY**

(3 class hrs/wk 3 cr)
Explores the historical events that influenced the development of the local area.

HST 280 CWE HISTORY

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to history. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

HSTS History of Science

HSTS 151 HISTORY OF SCIENCE

(3 class hrs/wk 3 cr) W
Surveys the history of science from earliest civilization to the present. Emphasizes the concepts of Galileo, Newton, Darwin and others and their impact on society.

HT Horticulture

HT 8.132 ARBORICULTURE I

(4 class hrs/wk 3 cr) W
Introduces ornamental horticulture, including how to plant, train, prune, protect and repair trees. Note: Course is offered alternate years only. Offered 1994-95.

HT 8.133 ARBORICULTURE II

(4 class hrs/wk 3 cr) Sp
Covers how to identify and correct tree problems. Topics include non-parasitic injuries, insects, diseases, inspection and diagnosis, spraying and equipment, tree appraisal, tree removal and climbing. Note: Course is offered alternate years only. Offered 1994-95.

HT 8.134 ADVANCED AGRICULTURAL CHEMICALS

(4 class hrs/wk 3 cr)
Presents the use and safety requirements of agricultural chemicals, beyond the scope of AG 8.130 Agriculture Chemicals. Prepares students to take the State Pesticide Consultant Exam.

HT 8.135 TURF MANAGEMENT I

(4 class hrs/wk 3 cr) W
Introduces and develops the art and science of turf-grass culture. Grass identification and maintenance; fertilizer and water requirements; weed, insect and disease identification and control; and other turf problems are emphasized. Note: Course is offered alternate years only. Offered 1993-94.

HT 8.136 TURF MANAGEMENT II

(4 class hrs/wk 3 cr) Sp
Provides opportunity to adapt and apply principles and theories taught in HT 8.135 Turf Management I. Includes business practices and procedures and field trips to observe common practices, maintenance and management of turf areas. Note: Course is offered alternate years only. Offered 1993-94.

HT 8.137 PLANT PROPAGATION

(5 class hrs/wk 4 cr) Sp
Introduces the principles, methods, techniques and facilities used to propagate ornamentals.

HT 8.139 ARBORICULTURE PRACTICUM

(4 class hrs/wk 3 cr) Sp
Practical field experience in climbing and tree work. Taught by certified Arborists. Prerequisite: Instructor approval.

HT 8.140 LANDSCAPE MAINTENANCE

(5 class hrs/wk 3 cr) F
Introduces principles, methods, techniques and use of equipment for maintenance of landscape and turf areas. Note: Course is offered in alternate years only. Offered 1993-94.

HT 8.141 LANDSCAPE PLANNING

(5 class hrs/wk 3 cr) W
Surveys basic layout and design, site utilization and orientation of landscape facilities. Includes landscape contours, grading, trees, shrubs, floral selection, utilization and fertilization.

HT 8.168 PLANT IDENTIFICATION

(4 class hrs/wk 3 cr) Sp
Introduces woody plants used for landscape purposes. Students learn to identify each plant by its seasonal characteristics. The form, habit, height, spread, soil requirements, root system, flower, fruit and horticultural usefulness are studied. Plant taxonomy is considered and botanical names are stressed.

HT 8.169 TREE IDENTIFICATION

(4 class hrs/wk 3 cr) F
Introduces trees and large woody shrubs used for landscaping purposes. Students learn to recognize each tree by its seasonal characteristics: leaves, fruits, flowers and stems. The form, habit, spread, soil requirements and horticultural usefulness are studied. Note: Course is offered in alternate years only. Offered 1994-95.

HUM Humanities

► **HUM 100 INTRODUCTION TO HUMANITIES**

(3 class hrs/wk 3 cr) F/W/Sp
Introduces students to the connections among arts, ideas and human experiences through study and experience of selected works. Emphasizes arts and ideas as reflections of influences on social and cultural change. Attendance at out-of-class activities is required.

HV Heavy Equipment Mechancis/Diesel

HV 3.128 FUEL INJECTION SYSTEM

(20 class hrs/wk 1-10 cr) F
Studies fuel injection theory and component repair. Fuel system components are studied, tested, repaired and adjusted, emphasizing inline, opposed piston and pressure-timed pumps and a variety of injectors and governors. Turbo and super chargers and cooling system maintenance is included. Prerequisite: Instructor approval required.

HV 3.129 HEAVY EQUIPMENT/ DIESEL ENGINES

(20 class hrs/wk 1-10 cr) W
Covers operating principles, maintenance, repair and overhaul of various types and sizes of diesel engines. Includes both two- and four-stroke diesel engines, their component parts and related accessories, and standardized manufacturer's specifications. Prerequisite: Instructor approval required.

COURSE DESCRIPTIONS

HV 3.130 HEAVY EQUIPMENT/ DIESEL TUNE-UP

(20 class hrs/wk 1-10 cr) Sp

Studies diesel tune-up and techniques for optimum engine performance, including diagnostic troubleshooting, load testing and engine break-in procedure through use of the dynamometer. Prerequisite: Instructor approval required.

HV 3.131 HEAVY EQUIPMENT SERVICE & REPAIR

(20 class hrs/wk 1-10 cr) F/W/Sp

Emphasizes advanced instruction through practice and laboratory exercises in an open lab. Live projects are used, preparing students for job entry in the area of heavy equipment mechanics. Prerequisite: Instructor approval required.

HV 3.132 PNEUMATIC BRAKING & ACCESSORY SYSTEMS

(3 class hrs/wk 2 cr) F

Covers truck and heavy equipment pneumatic systems and brake systems. Pneumatic theory application is stressed. Pneumatic systems components are tested, repaired and adjusted. Alignment of heavy trucks is included. Prerequisite: Instructor approval required.

HV 3.134 INDUSTRIAL FLUID POWER

(5 class hrs/wk 3 cr) W

Provides background in hydraulic and pneumatic systems mechanics, their components and the operation and function of each.

HV 3.295 POWER TRAIN SYSTEMS

(20 class hrs/wk 1-10 cr) F/W/Sp

Studies the complete power train system, with emphasis on the theory, application and servicing of clutch systems, manual transmissions, transfer cases, drive lines, universal joints and differential assemblies.

HV 3.296 SUSPENSION/BRAKING SYSTEMS

(20 class hrs/wk 1-10 cr) F/W/Sp

Covers fundamental principles of automotive suspension systems, with emphasis on frames, steering systems, alignment and wheel balancing. In addition, a comprehensive study of disc and drum braking systems and their components is included.

HV 3.297 ELECTRICAL AND FUEL SYSTEMS

(20 class hrs/wk 1-10 cr) F/W/Sp

Introduces principles and terminology of fuel and carburetion systems and testing, servicing and repairing of electrical systems. Students work with techniques and overhaul procedures for carburetors, fuel pumps, fuel tanks, fuel gauges, fuel lines, fittings, charging systems, starting systems and other electrical components. Prerequisite: Placement Test scores for Reading Level I and MTH 20 Basic Mathematics or equivalent.

HV 3.303 MOBILE AIR CONDITIONING & COMFORT SYSTEMS I

(5 class hrs/wk 3 cr)

Theoretic principles of mobile heating and air conditioning systems with emphasis on design, function, adjustment, service and testing of components.

HV 3.307 MECHANICAL PROCESSES I

(3 class hrs/wk 2 cr)

Required for Automotive and Heavy Equipment Mechanics/Diesel majors. Covers competencies and skills required for the first year. Covers safety, hand tools, power tools, precision measurement, metric measurement, fasteners, torque, electrical principles and meter usage.

HV 3.308 MECHANICAL PROCESSES II

(3 class hrs/wk 2 cr)

Required for Automotive and Heavy Equipment Mechanics/Diesel majors. Covers service manual usage; pulling, pushing and lifting devices; tubing, hoses and fittings; and bearings and lubrication.

HV 3.309 MECHANICAL PROCESSES III

(3 class hrs/wk 2 cr)

Required for Automotive and Heavy Equipment Mechanics/Diesel majors. Covers engine basics, gaskets, seals and sealants; hydraulic principles; and tool maintainance.

IED Industrial Education

IED 199 OUT OF THE FIERY FURNACE

(3 class hrs/wk 2 cr)

Surveys the industrial development of man's use of metals and the socio-economic impacts of the development of metals and materials technologies. Emphasizes the relationship of science technology and society.

IN Industrial Technical

IN 3.198 INDUSTRIAL TECHNICAL SEMINAR: LEADERSHIP

(1 class hr/wk 1 cr) F/W/Sp

Provides leadership development through the Industrial Technical Society. Members of Industrial Department organizations participate as officers at a divisional organization level. Opportunities for directing and organizing affairs of the Society, planning, budgeting, promoting, implementing and evaluating of ITS activities, including technical workshop and special technical projects.

IN 3.442 INDUSTRIAL TECHNICAL SOCIETY SEMINAR

(1 class hr/wk 1 cr) F/W/Sp

Seminar for students in various industrial and technical disciplines. Students participate in organizing activities such as technical seminars, workshops, field trips or construction and repair projects related to their program.

IS International Studies

IS 251 POPULATION AND GLOBAL RESOURCES

(3 class hrs/wk 3 cr)

Introduces students to the world ecosystem from a global perspective, including qualitative and quantitative aspects of human populations and their resources and alternative strategies for coping with global imbalance.

IS 252 RICH/PÓOR NATIONS CONFLICT RESOLUTION

(3 class hrs/wk 3 cr)

Introduces students to differences in national economics, politics, social structures, cultures and world outlook. The central theme is how people seek to improve their quality of life.

JN Journalism

JN 134 INTRODUCTION TO PHOTOJOURNALISM

(4 class hrs/wk 3 cr) W

Introduces photojournalism techniques, including use of fast films, push processing, use of existing light and flash, printing for reproduction and digital image manipulation. Studies approaches to documentary photography through realistic assignments for the student newspaper. Lab work included. Prerequisite: PHO 261 Introduction to Photography or instructor approval.

JN 215A JOURNALISM LAB

(3 class hrs/wk 1 cr) F/W/Sp

Offers supervised editorial work on the college's student newspaper (The Commuter) in reporting, photography, editing or advertising. Provides training and experience with computerized word processing and desktop publishing. Note: Course serves as the lab for JN 216, 217, 218; also may be taken independently from those courses. Note: May be repeated for up to 6 credits.

COURSE DESCRIPTIONS

JN 215B JOURNALISM PRODUCTION LAB

(4 class hrs/wk 2 cr) F/W/Sp
Offers supervised production work on the college's student newspaper (*The Commuter*) to gain practical experience in applying graphic arts skills. Note: May be repeated for up to 4 credits. Prerequisite: any of the following courses: AA 120 Art and Copy Preparation, AA 263 Reproduction Photography I, JN 218 Editing & Page Design or instructor approval.

JN 216 NEWS REPORTING AND WRITING

(3 class hrs/wk 3 cr) F/Sp
Presents basics of journalistic writing, with emphasis on assignments to be used in the student newspaper. Students study interviewing and other news gathering techniques, effective writing of news and features, and journalistic ethics. Corequisite: JN 215A Journalism Lab.

JN 217 FEATURE WRITING

(3 class hrs/wk 3 cr)
Studies journalistic writing with emphasis on backgrounding, depth reporting, interpretive writing and newer journalism forms. Students submit articles for publication, most often in the student newspaper. Corequisite: JN 215A Journalism Lab.

JN 218 EDITING AND PAGE DESIGN

(3 class hrs/wk 3 cr) W
Introduces copy editing, photo editing, headline writing, editorial decision making, page design and layout. Prerequisite: JN 216 News Reporting and Writing. Corequisite: JN 215A Journalism Lab.

JN 224 MEDIA & SOCIETY

(3 class hrs/wk 3 cr) F
Studies the history and development of communications and the mass media. Includes media impact on American and global culture, philosophies of information dissemination under various political structures, mass media's role in global politics and communication theory.

JN 225 INTRODUCTION TO ADVERTISING & PUBLIC RELATIONS

(3 class hrs/wk 3 cr) Sp
Provides an overview of advertising and public relations, including public information methods, copywriting, design, marketing, use of printing technology and historical and journalistic perspectives on the fields.

JN 280 CWE JOURNALISM

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to journalism. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

MA..... Manufacturing Technology

MA 3.390 MACHINE TOOL I

(3 class hrs/wk 2 cr) F/W/Sp
Instructs beginning student in the basic operation of the vertical mill and engine lathe. All tools and materials are furnished, with the exception of one 6-inch scale and approved safety glasses.

MA 3.391 MACHINE TOOL II

(3 class hrs/wk 2 cr) F/W/Sp
Continues the basic skills of operating the engine lathe. Students work on a series of exercises involving thread cutting, turning between centers, knurling, facing and other basic lathe operations. Prerequisite: MA 3.390 Machine Tool I.

MA 3.392 MACHINE TOOL III

(3 class hrs/wk 2 cr) F/W/Sp
Continues Machine Tool I and II. Students learn basic and intermediate operations on the vertical milling machine. Prerequisite: MA 3.391 Machine Tool II.

MA 3.393 MACHINE TOOL IV

(3 class hrs/wk 2 cr) F/W/Sp
Allows students to work on projects requiring milling machine and lathe operations and in which assembly of parts is required. Basic operation of the surface grinder is covered when the student project is finish-ground to specified tolerances. Prerequisite: MA 3.392 Machine Tool III.

MA 3.394 MACHINE TOOL V

(3 class hrs/wk 2 cr) F/W/Sp
Requires students to do more advanced milling machine and lathe operations, including indexing with the dividing head, holding parts with special fixtures, calculating dimensions using trigonometry and collet turning in the lathe. Prerequisite: MA 3.393 Machine Tool IV.

MA 3.395 MACHINE TOOL VI

(3 class hrs/wk 2 cr) F/W/Sp
Continues the project method of teaching basic and intermediate operations on the mill, lathe and grinder, along with their related holding fixtures and devices. Prerequisite: MA 3.394 Machine Tool V.

MA 3.396 OPERATIONS & PROCESSES I

(3 class hrs/wk 3 cr) F
A theory and procedures class for basic machine tool operation. Emphasizing safe and correct operation of the drill press, lathe and mill. Covers layout, speeds and feeds, process-planning and selection of tooling. Corequisite: MA 3.415 Machine Tool Skills Lab, MA 3.422 Manufacturing Lab I, IN 3.4421 I.T.S. Manufacturing.

MA 3.397 OPERATIONS AND PROCESSES II

(2 class hrs/wk 2 cr) W
Focuses on intermediate machine tool operation. The various machines with their capability, capacity and processes are discussed and illustrated. Prerequisite: MA 3.496 Operations and Processes I, MTH 20 Basic Math. Corequisite: MA 3.415 Machine Tool Skills Lab, MA 3.423 Manufacturing Lab II, IN 3.4421 I.T.S. Manufacturing.

MA 3.398 OPERATIONS AND PROCESSES III

(2 class hrs/wk 2 cr) Sp
Focuses on advanced machine tool operation and processes. Developing knowledge necessary to make machine and tool selection, to develop process plans and to create set-ups for multi-machine projects. Prerequisite: MA 3.497 Operations and Processes II, MTH 60 Beginning Algebra. Corequisite: MA 3.415 Machine Tool Skills Lab, MA 3.424 Manufacturing Lab III, IN 3.4421 I.T.S. Manufacturing.

MA 3.399 PRECISION MEASUREMENT

(1 class hr/wk 1 cr) F
Provides instruction in the use of precision measuring equipment. Decimal fractions, degree of accuracy and selection of appropriate tools are covered. Students learn to use hand tools to inspect their own machine projects. Corequisite: MA 3.496 Operations and Processes I.

MA 3.400 MACHINE TOOL PROJECTS

(2-6 class hrs/wk 1 - 3 cr) F/W/Sp
An independent study course for Manufacturing Technology. Emphasizes student-generated, instructor-guided projects.

COURSE DESCRIPTIONS

MA 3.406 MANUFACTURING TECHNOLOGY IV

(18 class hrs/wk 9 cr) F/W/Sp
Provides advanced lathe and milling machine training, including dividing heads on rotary tables and simple tracer lathe work, with emphasis on industry-accepted metal removal rates. Production of ferrous and non-ferrous alloys, iron and steel is studied. Assigned projects require use of the surface grinder and other abrasive metal removal techniques. Prerequisite: MA 3.398 Operations & Processes III; MTH 61 Survey of Math Fundamentals; MTH 62 Occupational Trigonometry. Corequisite: MA 3.415 Machine Tool Skills Lab.

MA 3.407 MANUFACTURING TECHNOLOGY V

(18 class hrs/wk 9 cr) F/W/Sp
Includes projects that require using a combination of machine tools to produce items such as spur gears and racks. Emphasizes precision, with tolerances much closer than in previous terms. Metal processing is covered, including heat treating, hardening, tempering and annealing. Prerequisite: MA 3.406 Manufacturing Technology IV. Corequisite: MA 3.415 Machine Tool Skills Lab.

MA 3.408 MANUFACTURING TECHNOLOGY VI

(18 class hrs/wk 9 cr) F/W/Sp
Extends engine lathe and milling machine skills, with emphasis on quality and speed. Includes an introduction to cylindrical grinding, tool and cutter grinding, and jig boring. Prerequisite: MA 3.407 Manufacturing Technology V. Corequisite: MA 3.415 Machine Tool Skills Lab.

◆ MA 3.409 COMPUTER INTEGRATED MANUFACTURING I

(2 class hrs/wk 2 cr) F
Provides training in the operation of a PC-based CAD system. Generation of two- and three-dimensional data bases using the CADKEY or similar system. Prerequisite: MA 3.420 Numerical Control: Mill.

MA 3.410 COMPUTER INTEGRATED MANUFACTURING II

(2 class hrs/wk 2 cr) W
Uses the SmartCam or similar system hardware to produce 2-D cutting paths. These cut paths are post-processed and then run on the CNC mill and lathe. Prerequisite: MA 3.409 Computer Integrated Manufacturing I.

MA 3.411 COMPUTER INTEGRATED MANUFACTURING III

(4 class hrs/wk 2 cr) Sp
Uses a CAD-CAM system. Data bases generated in CADKEY or similar CAD program are downloaded into Smart CAM or similar CAM program to produce far more complex parts. Parts to be run on CNC mill and lathe. Prerequisite: MA 3.410 Computer Integrated Manufacturing II.

MA 3.415 MACHINE TOOL SKILLS LABORATORY

(3-6 class hrs/wk 0 cr) F/W/Sp
Provides the opportunity to gain and refine machining skills necessary to be a successful machinist. This lab is offered each term in conjunction with the Manufacturing Technology major classes.

MA 3.417 MACHINING GRAPHICS

(3 class hrs/wk 2 cr) F
Introduces graphic communication as used in the manufacturing environment. Students become familiar with the grammar and symbols of shop prints and learn to interpret prints of increasing complexity. Taught through a combination of lecture, demonstration and problem sheets.

MA 3.418 GEOMETRIC CONTROLS

(3 class hrs/wk 2 cr) Sp
Presents an overview of geometric dimensioning and tolerancing as used in modern industry. Focuses on practical and applied methods, with an emphasis on interpretation and use. Shows the power of GD&T in clarifying part-geometry and its use in everyday shop projects.

◆ MA 3.420 NUMERICAL CONTROL: MILL

(4 class hrs/wk 3 cr) W
Covers the ISO/EIA language of CNC machine tool programming, the universal coding language. Programs are written, coded and loaded into machine memory. Parts are drawn and cut from code on the CNC mill. Prerequisite: MA 3.417 Machining Graphics or equivalent; MA 3.396 Operations & Processes I; MTH 20 Basic Math. Corequisite: MTH 60 Beginning Algebra.

◆ MA 3.421 NUMERICAL CONTROL: LATHE

(4 class hrs/wk 3 cr) Sp
Covers the more advanced programming and control of the CNC lathe. Lecture and projects designed to reveal the power and sophistication of higher level ISO language. Coding, set-up and operation of an industry-level CNC turning center. Prerequisites: MA 3.420 Numerical Control: Mill.

MA 3.422 MANUFACTURING LAB I

(15 class hrs/wk 5 cr) F/W/Sp
A laboratory class consisting of focused skill projects. Emphasis on safe operation of machine tools in metal cutting. A specific number of projects is set for the term. Corequisites: IN 3.4421 I.T.S. Manufacturing; MA 3.415 Machine Tool Skills Lab; MA 3.417 Machining Graphics or equivalent; MA 3.496 Operations & Processes I.

MA 3.423 MANUFACTURING LAB II

(15 class hrs/wk 5 cr) F/W/Sp
Focused skill projects. Emphasizes safe operation while increasing speed and efficiency. Projects may require several set-ups. Specified project list. Prerequisites: MA 3.417 Machining Graphics or equivalent; MA 3.422 Manufacturing Lab I; MA 3.496 Operations & Processes I; MTH 20 Basic Math. Corequisites: IN 3.4421 I.T.S. Manufacturing; MA 3.415 Machine Tool Skills Lab; MA 3.497 Operations & Processes II.

MA 3.424 MANUFACTURING LAB III

(15 class hrs/wk 5 cr) F/W/Sp
Focused skill projects. Emphasizes safe and efficient machining of components for assemblies. May require the use of several machines and set-ups. Specified project list. Prerequisites: MA 3.423 Manufacturing Lab II; MA 3.497 Operations and Processes II; MTH 60 Beginning Algebra. Corequisites: IN 3.4421 I.T.S. Manufacturing; MA 3.415 Machine Tool Skills Lab; MA 3.498 Operations & Processes III; MTH 61 Survey of Math Fundamentals; MTH 62 Occupational Trigonometry.

MA 3.425 MACHINERY'S HANDBOOK I

(2 class hrs/wk 2 cr) W
Involves students in active use of the Machinery's Handbook, a primary shop reference. The content, organization and utility are highlighted. Provides information for the machinist to use in lab projects. Prerequisite: MA 3.496 Operations and Processes I; MTH 20 Basic Math.

MA 3.426 MACHINERY'S HANDBOOK II

(2 class hrs/wk 2 cr) Sp
Advanced concepts from Machinery's Handbook. Data collection and problem solving are emphasized. Covers concepts used in advanced machine tool projects. Prerequisites: MA 3.497 Operations & Processes II; MTH 60 Beginning Algebra; MA 3.425 Machinery's Handbook I.

MA 4.130 MACHINE PROCESSES

(3 class hrs/wk 2 cr) F/W/Sp

Provides an overview of the machine tool metalworking trades and the relationship between the technical trades. The class consists of lecture-discussion, demonstration and hands-on lab time and is designed for students with majors other than manufacturing technology.

ME..... Metallurgy Technology

ME 1.204 CAREER ORIENTATION METALLURGY

(3 class hrs/wk 1 cr)

Introduces the broad areas and job assignments of metallurgical technicians. Job assignments will not be studied in detail but will be investigated as a process of sampling, enabling the student to investigate future work.

ME 3.444 WELDING METALLURGY I

(5 class hrs/wk 4 cr) Sp

Introduces the physical and mechanical properties of weld metal and the effect of soldering, brazing and fusion processes on structural and service requirements of metal joints. Investigations are made to determine operator responsibility in completing joints in welded metals capable of matching or exceeding the strength and reliability of the base metals.

ME 3.445 WELDING METALLURGY II

(5 class hrs/wk 4 cr) W

Introduces the basic processes of welding fabrications, and investigates structural characteristics of metals related to quality, low-cost welded assemblies. Students examine welds made on low-, medium- and high-carbon steels; cast irons, high-strength, low-alloy steels; stainless steels; and non-ferrous alloys using a variety of weld methods.

ME 3.446 METALS INVESTIGATION & EVALUATION

(3 class hrs/wk 2 cr) W

Provides an introduction to metallic structures and behavior of ferrous and non-ferrous alloys. How fusion welding and hard surfacing affect the metallic structure, the machining and the service life of the metal. Methods of improving the structure and increasing the serviceability of metal are included.

ME 3.447 METALLURGY FOR MECHANICS

(2 class hrs/wk 2 cr) W

Introduces metallic structure, including its composition and properties. Students are familiarized with methods of metal identification, effects of heat treatment on ferrous and non-ferrous metals and effects of poor workmanship on service life or performance of metals.

ME 3.448 WELDING PROCESSES

(3 class hrs/wk 2 cr) F

Course is designed to acquaint students with the fundamentals of different welding processes currently practiced in industry. Course work will be divided into theory and hands-on experience.

ME 3.450 COMPUTER APPLICATIONS INDUSTRIAL TECH.

(1 class hr/wk 1 cr)

Provides students with basic information about computer systems and terminology, with special reference made to hand-held programmable machines and their industrial applications.

ME 4.120 FUNDAMENTALS OF SPECIFICATIONS

(3 class hrs/wk 3 cr) Sp

Acquaints students with preparing and interpreting manufacturing and fabrication specifications. Practical problems are assigned relating classwork to industry.

ME 4.122 STRENGTH OF MATERIALS

(3 class hrs/wk 3 cr) F

Introduces the mechanics of tension, compression, torsion and shear, involving the major factors of metals, time and force. Includes mechanical properties relating to service performance. Prerequisite: MTH 65 Elementary Algebra or instructor approval.

ME 4.161 MATERIALS TESTING I

(4 class hrs/wk 3 cr) F

Studies the properties of engineering materials. Covers the fundamental aspects of the behavior of engineering materials, including elastic and plastic deformation, fracture creep fatigue, impact, temperature effects and corrosion. Also includes destructive and non-destructive evaluation, elementary principles of measurement, methodology test equipment, instrumentation and analysis of data.

ME 4.162 MATERIALS TESTING II

(4 class hrs/wk 3 cr) W

Studies the properties of engineering materials. Includes elastic and plastic deformation, fracture, creep, fatigue, impact, temperature effects and corrosion, destructive and non-destructive evaluation, elementary principles of measurement, methodology test equipment, strain gauges and application, instrumentation and data acquisition and analysis.

ME 4.163 MATERIALS TESTING III

(4 class hrs/wk 3 cr) Sp

Surveys testing techniques, including bend, elevated temperature, non-metallic creep, flare and burst, corrosion of coated surfaces and reliable conversion of test data to identify related mechanical properties.

ME 6.270 METALLURGY READING AND CONFERENCE

(1-30 class hrs/wk 1-10 cr)

Topics covered and credit to be assigned are agreed upon by the instructor and the student. Subject areas of particular interest to the student or areas where the student needs additional work can be covered within this course. Prerequisite: Instructor approval.

ME 6.276 PHYSICAL METALLURGY

(6 class hrs/wk 4 cr) W

Studies concepts, structures, properties, heat treatment and methods of forming and evaluating metals and alloys. Prerequisite: ME 6.293 Introduction to Metallurgy or instructor approval.

ME 6.278 BASIC METALLURGY

(5 class hrs/wk 2 cr) Su

Introduces ingredients required to make alloys and the machinery processes necessary to help those alloys behave more efficiently.

ME 6.281 MAGNETIC PARTICLE TESTING & PENETRANT TESTING: LEVEL I & II

(5 class hrs/wk 3 cr) F

Students perform hands-on exercises with visible and fluorescent liquid penetrants and a variety of magnetic particle testing instrumentations. Course meets minimum training requirements as recommended by SNT-TC-1A practices for Level I and II certification.

ME 6.282 ULTRASONIC & ELECTROMAGNETIC TESTING: LEVEL I

(5 class hrs/wk 3 cr) W

Introduces basic principles and provides hands-on time with calibration and application of contract, immersion and electromagnetic instrumentations. Course meets minimum training requirements in ultrasonic and electromagnetic testing as recommended by SNT-TC-1A practices for Level I certification.

COURSE DESCRIPTIONS

ME 6.283 RADIOGRAPHIC TESTING: LEVEL I

(5 class hrs/wk 3 cr) Sp

An introductory course in the theory and techniques of radiographic testing and inspection. Introduces safety practices and radiation types. Students perform hands-on exercises with x-ray equipment. Course meets minimum training requirements as recommended by SNT-TC-1A practices for Level I certification.

ME 6.284 RADIOGRAPHIC TESTING: LEVEL II

(6 class hrs/wk 4 cr) Sp

Reviews basic radiographic principles and introduces film quality techniques, radiographic evaluation and interpretation, and manufacturing processes with associated discontinuities. Course meets minimum training requirements as recommended by SNT-TC-1A practices for Level II certification.

ME 6.285 ULTRASONIC & ELECTROMAGNETIC TESTING: LEVEL II

(6 class hrs/wk 4 cr) W

Reviews basic ultrasonic principles and introduces students to evaluation of base-material product forms, applicable codes and evaluations, and interpretation of information gained from a variety of instrumentations. Course meets requirements as recommended by SNT-TC-1A practices for Level II certification.

ME 6.293 INTRODUCTION TO METALLURGY

(6 class hrs/wk 4 cr) F

Explores basic metallurgical principles, including materials testing and evaluation, metallography and non-destructive testing. Students are familiarized with terminology of physical, mechanical and chemical properties and the effects of fabrication methods on these properties.

ME 6.294 PROCESS METALLURGY

(6 class hrs/wk 4 cr) Sp

Studies metallurgical principles, including raw material requirements for metals-processing furnaces and refractories, furnace fuels and combustions, heat flow, energy balances and alloy systems. Prerequisite: CH 4.205 Technical Chemistry or instructor approval.

ME 6.298 METALLOGRAPHY I

(4 class hrs/wk 3 cr) W

Covers understanding and use of metallurgical equipment, including technical concepts of specimen procurement, mounting, polishing, etching, visual examination, sketching of structural characteristics, photomacrography and photomicrography of ferrous and non-ferrous materials. Prerequisite: ME 6.276 Physical Metallurgy or instructor approval.

ME 6.299 METALLOGRAPHY II

(4 class hrs/wk 3 cr) Sp

Introduces use of metallurgical equipment, including specimen procurement, mounting, polishing, etching, visual examination, sketching of structural characteristics, photomacrography and photomicrography of ferrous and non-ferrous materials.

MP Musical Performance

MP 102 CONCERT BAND

(2 class hrs/wk 1 cr) F/W/Sp

Offers applied study of and performance on musical instruments using concert band literature.

MP 103/203 MARCHING BAND

(2 class hrs/wk 1 cr) F

Provides opportunity for participation in a marching band in conjunction with the Oregon State University Department of Music. This performance group of more 160 musicians performs for home football games as well as one trip each year to an off-campus game. Note: Each class may be repeated for credit. Prerequisite: Instructor approval.

MP 105/205 COMMUNITY BIG BAND

(2 class hrs/wk 1 cr) F/W/Sp

Provides a performance-oriented class for traditional big band as well as modern and progressive jazz literature. Note: Each class may be repeated for credit. Audition may be required.

MP 115/215 COMMUNITY CHORALE

(2 class hrs/wk 1 cr) F/W/Sp

Provides performance-oriented class for major choral works. Note: Each class may be repeated for credit.

MP 122/222 CONCERT CHOIR

(4 class hrs/wk 2 cr) F/W/Sp

Uses vocal music to present different problems and styles. Note: Each class may be repeated for credit.

MP 131/231 CHAMBER CHOIR

(2 class hrs/wk 1 cr) F/W/Sp

Small, select vocal group that studies and performs early to contemporary literature. Audition required. Note: Each class may be repeated for credit.

MP 141/241 SYMPHONY ORCHESTRA

(2 class hrs/wk 1 cr) F/W/Sp

Provides opportunity for participation in a symphony orchestra in conjunction with the Oregon State University Department of Music. This large ensemble of 65-80 players performs orchestra repertoire from the 18th, 19th and 20th centuries. Note: Each class may be repeated for credit. Prerequisite: Instructor approval.

MP 151/251 REHEARSAL AND PERFORMANCE

(2-6 class hrs/wk 1-3 cr)

Offers credit for music rehearsal directly related to Performing Arts Department performance. Note: Class may be repeated for credit.

MP 171/271 INDIVIDUAL LESSONS: PIANO

(1 class hr/wk 1 cr) F/W/Sp

Provides individual instruction in piano. Note: Requires additional tutorial fee. Each class may be taken three times for credit. Prerequisite: Instructor approval.

MP 174/274 INDIVIDUAL LESSONS: VOICE

(1 class hr/wk 1 cr) F/W/Sp

Provides individual instruction in voice. Note: Requires additional tutorial fee. Each class may be taken three times for credit. Prerequisite: Instructor approval.

MP 178/278 INDIVIDUAL LESSONS: BASS

(1 class hr/wk 1 cr) F/W/Sp

Provides individual instruction in bass. Note: Requires additional tutorial fee. Each class may be taken three times for credit. Prerequisite: Instructor approval.

MP 179/279 INDIVIDUAL LESSONS: HARP

(1 class hr/wk 1 cr) F/W/Sp

Provides individual instruction in harp. Note: Requires additional tutorial fee. Each class may be taken three times for credit. Prerequisite: Instructor approval.

MP 181/281 INDIVIDUAL LESSONS: FLUTE

(1 class hr/wk 1 cr) F/W/Sp

Provides individual instruction in flute. Note: Requires additional tutorial fee. Each class may be taken three times for credit. Prerequisite: Instructor approval.

MP 183/283 INDIVIDUAL LESSONS: CLARINET

(1 class hr/wk 1 cr) F/W/Sp

Provides individual instruction in clarinet. Note: Requires additional tutorial fee. Each class may be taken three times for credit. Prerequisite: Instructor approval.

MP 184/284 INDIVIDUAL LESSONS: SAXOPHONE

(1 class hr/wk 1 cr) F/W/Sp

Provides individual instruction in saxophone. Note: Requires additional tutorial fee. Each class may be taken three times for credit. Prerequisite: Instructor approval.

MP 186/286 INDIVIDUAL LESSONS: TRUMPET

(1 class hr/wk 1 cr) F/W/Sp
Provides individual instruction in trumpet.
Note: Requires additional tutorial fee. Each class may be taken three times for credit.
Prerequisite: Instructor approval.

MP 188/288 INDIVIDUAL LESSONS: TROMBONE

(1 class hr/wk 1 cr) F/W/Sp
Provides individual instruction in trombone.
Note: Requires additional tutorial fee. Each class may be taken three times for credit.
Prerequisite: Instructor approval.

MTH..... Math

Note: All courses above MTH 20 Basic Mathematics require a calculator of some type. Please see your instructor to find out the type of calculator that is appropriate for your course.

MTH 20 BASIC MATHEMATICS

(4 class hrs/wk 4 cr) F/W/Sp/Su
Provides a thorough review of arithmetic, including fundamental operations with whole numbers, fractions, decimals, percentages, geometry and measurement. Provides a basis for MTH 60 Basic Algebra. Note: A minimum competency level is required to pass this course.

MTH 60 BEGINNING ALGEBRA

(4 class hrs/wk 4 cr) F/W/Sp/Su
A first course in algebra for students who have no previous algebra experience or who need a thorough review. Assumes no familiarity with algebra. Introduces basic operations with integers, exponents, algebraic expressions, rational numbers, linear equations and inequalities, word problems and graphs. Note: A minimum competency level is required to pass this class. Prerequisite: MTH 20 Basic mathematics or equivalent.

MTH 61 SURVEY OF MATHEMATICAL FUNDAMENTALS

(3 class hrs/wk 3 cr) F/W/Sp/Su
Survey course for the Associate of Applied Science degree. Covers basic algebra, dimensional analysis, ratio and proportion, charts, tables, graphs, data analysis and problem solving, and provides an introduction to practical geometry. Note: A minimum competency level is required to pass this course. Scientific calculator required. Prerequisite: MTH 60 Beginning Algebra or equivalent.

MTH 62 OCCUPATIONAL TRIGONOMETRY

(1 class hr/wk 1 cr) F/W/Sp/Su
Provides an introduction to right triangle trigonometry and its applications. Occupational formulas and applications are used. A minimum competency is required to pass this class. Scientific calculators required. Prerequisite: MTH 61 Survey of Mathematical Fundamentals.

MTH 63 INDUSTRIAL SHOP MATH

(1 class hr/wk 1 cr) W
A math course designed to acquaint the students with measuring tools in the industrial shop and the types of computations and problem solving methods frequently needed in industrial settings.

MTH 64 BUSINESS APPLICATIONS OF MATH FUNDAMENTALS

(1 class hr/wk 1 cr) Sp
Covers the mathematics of finance, including simple interest and compound interest as applied to bank loans, installment buying, credit purchases and annuities. Scientific calculator required. Prerequisite: MTH 61 Survey of Mathematical Fundamentals.

MTH 65 ELEMENTARY ALGEBRA

(4 class hrs/wk 4 cr) F/W/Sp/Su
An algebra course for the student with some familiarity with algebra. Includes factoring, rational expressions, word problems, graphing, systems of equations and quadratic equations. Note: a minimum competency level is required to pass this class. Prerequisite: MTH 60 Beginning Algebra or equivalent.

● **MTH 95 INTERMEDIATE ALGEBRA**

(4 class hrs/wk 4 cr) F/W/Sp/Su
Covers topics of a traditional second-year algebra course, including factoring, rational algebraic equations, absolute value, radicals, linear and quadratic equations, inequalities, systems of equations, exponential and logarithmic functions. Note: A minimum competency level is required to pass this course. Prerequisite: MTH 65 Elementary Algebra or equivalent.

● **MTH 97 PRACTICAL GEOMETRY**

(4 class hrs/wk 4 cr) F/W/Sp/Su
Presents applied, informal geometry for students who did not take geometry in high school or who need a thorough review. Includes problem solving, geometric shapes, angle measure, perimeter, area and volume, congruence and similarity, circles, basic constructions and an introduction to right angle trigonometry. Prerequisite: MTH 95 Intermediate Algebra or equivalent.

● **MTH 105 INTRODUCTION TO CONTEMPORARY MATHEMATICS**

(4 class hrs/wk 4 cr) F/W/Sp
A survey course in mathematics for students in the liberal arts and other non-science majors. Topics are selected from areas such as management science, statistics, social choice, the geometry of size and shape, and computers and their applications. Stresses the application of mathematics to the problems of contemporary society and the critical role these applications play in economic, political and personal life. Course emphasis is on conceptual development and application, rather than computational expertise. Prerequisite: MTH 95 Intermediate Algebra and MTH 97 Practical Geometry or equivalent.

● **MTH 111 COLLEGE ALGEBRA**

(4 class hrs/wk 4 cr) F/W/Sp/Su
Introduces relations and linear, quadratic, exponential, polynomial and logarithmic functions. Includes theory of equations, linear inequalities, systems of equations, matrices and determinants. Note: Graphing calculators may be required in some sections. Prerequisite: MTH 95 Intermediate Algebra and MTH 97 Practical Geometry or equivalent.

● **MTH 111T COLLEGE ALGEBRA: TECHNICAL**

(4 class hrs/wk 4 cr) F
Mathematics for students in technical programs that emphasize solving applied, technical problems. Begins with an introduction to trigonometry and vectors to provide the basic background needed for physics, which many students take concurrently. Additional topics include variation, systems of equations, determinants, quadratic equations, logarithmic and exponential functions, complex numbers and higher-order polynomial equations. Prerequisite: MTH 95 Intermediate Algebra and MTH 97 Practical Geometry or equivalent.

● **MTH 112 TRIGONOMETRY**

(4 class hrs/wk 4 cr) F/W/Sp/Su
Introduces circular functions, trigonometric functions, trigonometric identities, inverse trigonometric functions, trigonometric equations, right triangle trigonometry, complex numbers and polar coordinates. Prerequisite: MTH 111 College Algebra or equivalent.

COURSE DESCRIPTIONS

● **MTH 112T TRIGONOMETRY: TECHNICAL**

(4 class hrs/wk 4 cr) W
Mathematics for students in technical programs that emphasize solving applied, technical problems. Includes graphs of the trigonometric functions, oblique triangles, trigonometric identities and equations, complex numbers and equations in polar coordinates. Prerequisite: MTH 111T College Algebra: Technical or equivalent.

● **MTH 113 ANALYTIC GEOMETRY**

(4 class hrs/wk 4 cr) F/W/Sp
Introduces conic sections, polar coordinates, polar graphs, vectors, lines, planes in three dimensions, translations and rotations. Prerequisite: MTH 112 Trigonometry or equivalent.

MTH 150 INTRODUCTION TO STATISTICS

(4 class hrs/wk 4 cr) W
An introductory statistics course that explores statistical processes, stressing data-centered topics and the collection and description of data. Introduces basic concepts of data description and analysis, samples and surveys, probability and distributions, confidence levels and significant tests, and statistical inference. Examples and problems focus on practical applications, statistical methods and problem solving. Prerequisite: MTH 95 Intermediate Algebra or equivalent.

MTH 159 PROBLEM SOLVING

(2 class hrs/wk 2 cr) F/W/Sp
Helps students develop general problem-solving techniques applicable to many problem situations. Strategies discussed include recognizing patterns, working backward, using a variable, and guess and test. Practice in applying strategies is provided through a variety of problems drawn from logic, geometry, probability and quantitative data analysis. Prerequisite: MTH 65 Elementary Algebra or equivalent.

◆ **MTH 173B MICROCOMPUTERS: BASIC**

(4 class hrs/wk 3 cr)
Introduces the BASIC language for computing devices and its use in solving problems related to the student's field of interest. Includes study of data types, input/output, repetition and decision structures, subprograms, functions and arrays. Prerequisite: MTH 65 Elementary Algebra.

◆ **MTH 173P MICROCOMPUTERS: PASCAL**

(5 class hrs/wk 4 cr)
Introduces the use of computers and Pascal language to solve problems related to the student's field of interest. Includes study of data types, input/output, structures, arrays, string manipulation and files. Prerequisite: MTH 65 Elementary Algebra.

◆ **MTH 174B MICROCOMPUTERS: ADVANCED BASIC**

(4 class hrs/wk 3 cr)
A continuation of MTH 173B Microcomputers: BASIC, plus string operations, graphics, file handling and computer modeling. Prerequisite: MTH 173B Microcomputers: BASIC or CS 133B Introduction to BASIC.

◆ **MTH 175 MICROCOMPUTER ASSEMBLY PROGRAMMING**

(4 class hrs/wk 3 cr)
Introduces microcomputer assembly level programming. Topics include use of registers, modes of addressing, arithmetic operations, use of the stack, screen processing and table processing. The 8086 family of microprocessors is used. Prerequisite: A high-level programming language such as BASIC, FORTRAN or Pascal.

MTH 199 MATHEMATICS: SPECIAL STUDIES

(1 class hr/wk 1 cr) F/W/Sp
Presents selected topics in mathematics

● **MTH 211 FUNDAMENTALS OF MATHEMATICS I**

(4 class hrs/wk 4 cr) F
First course in the mathematics sequence for prospective elementary and middle school teachers. This sequence develops the understanding of basic mathematical concepts necessary to teach mathematics at levels K - 8. Topics include problem solving, whole numbers, algorithms for computation, numeration systems, number theory and fractions. Note: Completion of the MTH 211, 212, 213 sequence satisfies the computer competency requirement. Prerequisite: MTH 95 Intermediate Algebra or equivalent.

● **MTH 212 FUNDAMENTALS OF MATHEMATICS II**

(4 class hrs/wk 4 cr) W
Second course in the mathematics sequence for prospective elementary and middle school teachers. Topics include decimals, percent, ratio and proportion, integers, real numbers, basic statistics and probability. Note: Completion of the MTH 211, 212, 213 sequence satisfies the computer competency requirement. Prerequisite: MTH 211 Fundamentals of Mathematics I.

● **MTH 213 FUNDAMENTALS OF MATHEMATICS III**

(4 class hrs/wk 4 cr) Sp
Third course in the mathematics sequence for prospective elementary and middle school teachers. Covers basic geometry, including shapes and their properties; symmetry; angle measure; measurement of length, area and volume; congruence and similarity; Pythagorean Theorem; and coordinate geometry. Note: Completion of the MTH 211, 212, 213 sequence satisfies the computer competency requirement. Prerequisite: MTH 212 Fundamentals of Mathematics II or instructor approval.

MTH 231 ELEMENTS OF DISCRETE MATHEMATICS

(4 class hrs/wk 4 cr) Sp
Covers elementary logic, mathematical induction, functions and sequences, finite and infinite sets, counting techniques, basic matrix algebra, relations, graphs and trees. Prerequisite: MTH 251 Calculus.

● **MTH 241 MATH FOR BIOLOGICAL/MANAGEMENT/SOCIAL SCIENCES**

(4 class hrs/wk 4 cr) F/W/Sp
Presents intuitive development of the calculus of polynomial, exponential and logarithmic functions, and extrema theory and applications. Prerequisite: MTH 111 College Algebra.

● **MTH 241T ELEMENTARY CALCULUS: TECHNICAL**

(4 class hrs/wk 4 cr) Sp
Mathematics for students in technical programs that emphasize solving applied, technical problems. Includes differential and integral calculus of polynomial, rational, trigonometric, exponential and logarithmic functions. Prerequisite: MTH 112T Trigonometry: Technical or equivalent.

● **MTH 245 MATH FOR BIOLOGICAL/MANAGEMENT/SOCIAL SCIENCES**

(4 class hrs/wk 4 cr) F/W/Sp
A survey course of discrete mathematics for non-physical science majors. Topics include systems of inequalities, linear programming and the simplex method, probability and probability distributions, and an introduction to descriptive statistics. Prerequisite: MTH 111 College Algebra.

● **MTH 251 CALCULUS**

(4 class hrs/wk 4 cr) F/W/Sp/Su
Traditional calculus sequence for students of mathematics, science and engineering. Includes differentiation, extrema, related rates, optimization problems, antidifferentiation, the definite integral, the fundamental theorem of calculus, numerical integration and areas. Prerequisite: MTH 113 Analytic Geometry.

COURSE DESCRIPTIONS

● MTH 252 CALCULUS

(4 class hrs/wk 4 cr) F/W/Sp
Second course in traditional calculus sequence for students of mathematics, science and engineering. Includes the calculus of logarithmic and exponential functions; calculus of trigonometric functions; applications to finding volumes of solids of revolution, work, fluid pressure, centroids, arc length, and surface area. Techniques of integration, improper integrals and a brief introduction to sequences and series are also included. Prerequisite: MTH 251 Calculus.

● MTH 253 CALCULUS

(4 class hrs/wk 4 cr) F/W/Sp
Third course in traditional calculus sequence for students of mathematics, science and engineering. Includes infinite series, parametric equations, polar coordinates, calculus of 2-space and 3-space vectors and an introduction to functions of several variables. Prerequisite: MTH 252 Calculus.

● MTH 254 CALCULUS

(4 class hrs/wk 4 cr) F/W/Sp
Fourth course in traditional calculus sequence for students of mathematics, science and engineering. Includes vector-valued functions, functions of several variables and multiple integration. Prerequisite: MTH 253 Calculus.

● MTH 255 VECTOR CALCULUS

(4 class hrs/wk 4 cr) W
An intermediate treatment of multivariate calculus with a vector approach. Provides the mathematical skills for courses in advanced calculus, fluid mechanics and electromagnetic theory. Prerequisite: MTH 254 Calculus.

● MTH 256 APPLIED DIFFERENTIAL EQUATIONS

(4 class hrs/wk 4 cr) Sp
Covers ordinary differential equations, series solutions and Laplace transforms. Prerequisite: MTH 253 Calculus.

● MTH 261 ELEMENTARY LINEAR ALGEBRA

(4 class hrs/wk 4 cr) F
Covers matrices, determinants, linear equations, vector spaces, eigenvalues, linear transformations and diagonalization. Prerequisite: MTH 251 Calculus.

● MTH 265 STATISTICS FOR SCIENTISTS & ENGINEERS

(4 class hrs/wk 4 cr) Sp
Covers probability and inferential statistics applied to scientific and engineering problems. Includes random variables, expectation, sampling, estimation, hypothesis testing, regression, correlation and analysis of variance. Prerequisite: MTH 252 Calculus.

MTH 280 CWE MATHEMATICS

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to mathematics. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

MUS Music

➤ MUS 101 MUSIC FUNDAMENTALS

(3 class hrs/wk 3 cr) F/W/Sp
Presents fundamentals of music for the non-music major: music reading, simple chord structure, introduction to harmony, singing and selected instruments (recorder and piano).

➤ MUS 105 INTRODUCTION TO ROCK MUSIC

(3 class hrs/wk 3 cr) F/W/Sp
Examines the relationship between rock music and society. Emphasizes the musical and lyrical significance of rock music as contemporary social commentary.

MUS 131/132 GROUP PIANO I, II

(2 class hrs/wk 2 cr)
Provides classroom instruction for the beginning piano student. Note: Must be taken in sequence. Prerequisite to MUS 132: MUS 131 Group Piano.

MUS 134/135 GROUP VOICE I, II

(2 class hrs/wk 2 cr)
Provides classroom instruction for the beginning voice student. Note: Must be taken in sequence. Prerequisite to MUS 135: MUS 134 Group Voice.

➤ MUS 161 MUSIC APPRECIATION

(3 class hrs/wk 3 cr) F/W/Sp
Provides a general survey of many music styles, with emphasis on developing music listening skills. Studies music through the elements or language of music, musical forms and the history of music.

➤ MUS 205 INTRODUCTION TO JAZZ

(3 class hrs/wk 3 cr)
Emphasizes a listener's approach to the development of jazz through its various styles.

MUS 280 CWE MUSIC

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to music. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

NU Nursing Assistant

NU 5.406 NURSING ASSISTANT

(30 hrs/wk 7 cr) F/W/Sp/Su
The Nursing Assistant course is 120 hours fulfilling the Oregon State Board of Nursing requirements (70 hours of classroom/skills laboratory instruction and 50 hours of clinical experience). Includes instruction in basic bedside nursing skills, basic restorative services, mental health and social service needs, personal care skills and patient rights. Provides the knowledge and skills necessary to care for convalescing patients in long-term care facilities. Note: Selected immunizations and reading test required. Prerequisite: Instructor approval.

NUR..... Nursing

NUR 101 NURSING I

(13 class hrs/wk 6 cr) F
Introduces the role of the nurse in meeting the needs common to patients of all ages. Includes fundamentals, obstetrics, growth and development tasks for all ages, beginning communication, and physical and mental illness for all ages, with emphasis on problem solving. Independent learning tasks, demonstrations, audio-visual aids, discussion and lecture are used in the classroom. A supervised campus lab is required. Supervised clinical practice is provided, with pre- and post-conferences to evaluate planned patient care. Note: Must be taken in sequence. Individually scheduled tutorial sessions are offered in addition to published schedules. Prerequisite: One-year of high school chemistry within past five years or CH 112 Chemistry for Health Occupations.

NUR 102 NURSING II

(15 class hrs/wk 8 cr) W
Second course in sequence; continues introduction to the role of the nurse. Note: Must be taken in sequence.

NUR 103 NURSING III

(17 class hrs/wk 9 cr) Sp
Third course in sequence; continues introduction to the role of the nurse. Note: Must be taken in sequence.

NUR 110 NURSING TRANSITIONS

(1 class hr/wk 1 cr) F

Designed to offer incoming freshmen an opportunity to receive help and support needed while entering the nursing program. Provides a variety of topics on stress management, study skills and review of curriculum content. Provides a support group through informal discussions and opportunity for problem solving.

NUR 121 NURSING SKILLS: DRUG ADMINISTRATION

(2 class hrs/wk 2 cr) F

Introduces the major drug classifications, drug administration skills, calculating drug dosages, legal aspects of drug administration and use of drug information resources. Includes general topics in pharmacology, such as drug metabolism and adverse reactions. Note: Available only to admitted ADN students.

NUR 122, 222 CONTEMPORARY NURSING I, II

(1 class hr/wk 1 cr) W/Sp

Defines the nursing role based on the history of the profession, current theories on the nature of health and disease, and selected responsibilities of the nurse in society and as practitioner. Reciprocal influences between society and nursing are identified as they relate to biological, sociological, psychological and therapeutic settings. Current issues, trends and practices in nursing are identified. Prerequisite: Instructor approval.

NUR 201, 202, 203 NURSING IV, V, VI

(20 class hrs/wk 10 cr) F/W/Sp

Continues study of major illnesses, from pediatrics to geriatrics, including complications of pregnancy. Gives consideration to scope, prevention, diagnosis, treatment and psycho-social aspects of illness, with emphasis on decision making. Includes deviations from normal growth and development that predispose to illness; rehabilitative aspects of nursing care and available community agencies; and basic concepts of personality, behavior and psychological processes, ranging from "normal" to "abnormal." Additional topics include legal aspects and trends in nursing, community health, leadership skills and specialty nursing areas. Note: Must be taken in sequence. Available only to second-year nursing students.

OA Business Technology

OA 114 ALPHABETIC SHORTHAND

(6 class hrs/wk 3 cr) F

Provides a short and rapid method of writing both notes and verbatim dictation. Covers the theory of an abbreviated alphabetic system, including the dominant sound rule, high-frequency words, high-frequency letter groups, prefix and suffix rules, and phrasing and abbreviating principles. Emphasizes development of speed and accuracy in dictation and transcription.

OA 121A TYPING I: KEYBOARDING/COMPUTERS

(5 class hrs/wk 1-2 cr) F/W/Sp/Su

Provides basic typing skills for those with no previous instruction or those needing a review of basic techniques. Basic techniques of the touch system on alphabetic keys and top-row number keys. Students use computer terminals. Individualized instruction; students may advance at their own rate. Note: Five-week class.

OA 122 TYPING II: FORMATTING

(5 class hrs/wk 1-2 cr) F/W/Sp/Su

Presents units on centering, correspondence, tabulation, business forms and manuscripts. Provides individualized instruction; students advance at their own rate. Note: Five-week class. Prerequisite: OA 123A Typing: Skill Building/Computers or equivalent; typing speed of at least 30 wpm.

OA 123A TYPING: SKILL BUILDING/COMPUTERS

(5 class hrs/wk 2 cr) F/W/Sp/Su

A computerized typing skill-building program that diagnoses a student's current keyboarding problems, prescribes appropriate practice materials and develops the student's overall keyboarding skills. Note: Five-week class. Prerequisite: OA 121A Typing I: Keyboarding/Computers or equivalent.

OA 123B ADVANCED TYPING: SKILL BUILDING/COMPUTERS

(5 class hrs/wk 2 cr) F/W/Sp/Su

A computerized typing skill-building program that further develops student's keyboarding skills through diagnosis of current keyboarding problems and specialized practice. Note: Five-week class. Prerequisite: OA 123A Typing: Skill Building/Computers.

OA 124 TYPING: SPEED AND ACCURACY DEVELOPMENT

(5 class hrs/wk 3 cr) F/W/Sp/Su

A computerized typing skill-building program that diagnoses keyboarding problems, prescribes appropriate practice drills, develops overall keyboarding skills and evaluates skill development progress. Note: Ten-week class. Prerequisite: OA 121A Typing I: Keyboarding/Computers or equivalent.

OA 201A BEGINNING WORDPERFECT

(6 class hrs/wk 1-2 cr) F/W/Sp/Su

Provides basics of using WordPerfect software for word processing. Includes fundamentals of using a PC compatible and printer operations. Students learn to type, edit and format documents. Note: Five-week class. Prerequisite: OA 121A Typing I: Keyboarding/Computers.

OA 201B MICROSOFT WORD WITH WINDOWS

(5 class hrs/wk 2 cr) W/Sp

Covers producing and editing documents using Microsoft Word with Windows. Students use a mouse to select toolbar icons, menu bar items and dialog box items to format and edit documents. Includes exposure to advanced features, such as styles, tables, graphics and merging. Prerequisite: OA 121A Typing I: Keyboarding/Computers or equivalent.

OA 202A ADVANCED WORDPERFECT

(6 class hrs/wk 2 cr) F/W/Sp/Su

Adds to the student's basic skills in the use of WordPerfect software. Includes working with columns of text, macros, merge/sort, mailing lists and labels. Note: Five-week course. Prerequisite: OA 201A Beginning WordPerfect or equivalent.

OA 202B WORDPERFECT WITH WINDOWS

(6 class hrs/wk 2 cr) F/W/Sp/Su

Covers how to produce and edit documents using WordPerfect for Windows. Students work with scroll bars, menu bars, dialogue boxes, icons and new graphic features. Note: Five-week course. Prerequisite: OA 201A Beginning WordPerfect or equivalent.

OA 214 APPLIED ALPHABETIC SHORTHAND

(6 class hrs/wk 3 cr) W

Provides a complete and extensive review of Alpha Hand shorthand, including all theory, alpha bits, phrases and shortcuts. Dictation covers vocabularies representative of various types of businesses. Emphasizes developing transcription skills, including correct forms, punctuation, capitalization and spelling. Prerequisite: OA 114 Alphabetic Shorthand (with a minimum of 60 wpm).

OA 2.500 BUSINESS ORIENTATION

(1 class hr/wk 1 cr) F

Introduces various career opportunities in the business field through films, speakers and field trips.

OA 2.513 DATA ENTRY SKILL BUILDING

(5 class hrs/wk 2 cr) F/W/Sp/Su

Develops speed and accuracy using the top-row numbers and 10-key numeric pad to enter typical business applications, such as payroll, account receivables, inventory, etc. Prerequisite: OA 121A Typing I: Keyboarding/Computers or minimum 25 wpm by touch.

OA 2.515 BUSINESS MATH WITH CALCULATORS

(5 class hrs/wk 1-3 cr) F/W/Sp/Su

Provides the opportunity to learn operation of the electronic calculator. This knowledge is applied to business mathematics in areas such as payroll, banking invoices, simple interest, compound interest, etc. Students advance at their own rate. Prerequisite: MTH 20 Basic Mathematics or equivalent.

OA 2.524 MEDICAL TRANSCRIPTION I

(5 class hrs/wk 1-3 cr) F/W/Sp/Su

Introduces the transcription of medical terminology in word lists and paragraphs, as well as preparation of basic medical forms. Prerequisite: OA 2.527 Transcribing Machines I; AH 5.630 Medical Terminology I; OA 202A Advanced WordPerfect.

OA 2.525 MEDICAL TRANSCRIPTION II

(5 class hrs/wk 1-3 cr) F/W/Sp/Su

Further develops student's skill in preparing medical forms and records from dictated material. Prerequisite: AH 5.633 Medical Terminology II; OA 2.524 Medical Transcription I; OA 202A Advanced WordPerfect.

OA 2.527 TRANSCRIBING MACHINES I

(5 class hrs/wk 2-3 cr) F/W/Sp/Su

Provides the opportunity to develop an entry-level job skill on the transcribing machine. Prerequisite: OA 122 Typing II: Formatting or equivalent; OA 2.588 Editing Skills for Information Processing; WR 115 Introduction to Writing or WR 121 English Composition.

OA 2.528 TRANSCRIBING MACHINES II

(5 class hrs/wk 1-3 cr) F/W/Sp/Su

Develops further the student's skill on the transcribing machine. Includes projects from a variety of business situations. Prerequisite: OA 2.527 Transcribing Machines I; OA 201A Beginning WordPerfect.

OA 2.529 APPLIED MEDICAL TRANSCRIPTION

(10 class hrs/wk 1-5 cr) F/W/Sp/Su

Introduces transcription of medical terminology in word lists and paragraphs, followed by preparation of medical forms and records from dictated material. Prerequisite: AH 5.633 Medical Terminology II; OA 2.527 Transcribing Machines I; OA 2.656M Information Processing Practicum: Medical Reports; OA 202A Advanced WordPerfect.

OA 2.544 MEDICAL INSURANCE PROCEDURES

(3 class hrs/wk 3 cr) Sp

Includes lecture and practical application of medical insurance and billing, utilizing the Student Workbook and special speakers. Exposes students to varying aspects of medical insurance, including prior authorization and CPT coding as applicable. Prerequisite: AH 5.630 Medical Terminology I.

OA 2.551 OFFICE COMMUNICATIONS

(6 class hrs/wk 3 cr) F/W/Sp

Prepares students to handle both the written and the verbal communication needs of a typical office. Prerequisite: WR 115 Introduction to Writing or OA 2.588 Editing Skills for Information Processing; OA 122 Typing II: Formatting; OA 201A Beginning WordPerfect.

OA 2.557 ADVANCED BUSINESS MATH APPLICATIONS

(5 class hrs/wk 1 cr)

Reviews the operation of the 10-key electronic calculator. Covers advanced business math applications such as calculating interest, maintaining bank records, and computing markup and markdown. Prerequisite: MTH 61 Survey of Mathematical Fundamentals or equivalent. Note: Five-week class.

OA 2.568 DOS & WINDOWS FOR BEGINNERS

(5 class hrs/wk 2 cr) F/W/Sp

Presents the basic operating system (DOS) and fundamentals of the Windows environment. Includes systems hardware components, basic MS-DOS commands and hard disk management. Also covers navigating in Windows, managing program, managing files, using selected Windows accessories, transferring data between applications, managing printing and customizing Windows. Note: Five-week class.

OA 2.588 EDITING SKILLS: INFORMATION PROCESSING

(3 class hrs/wk 3 cr) F/W/Sp/Su

Helps students improve their written communication skills. Editing and proofreading procedures are emphasized. Additional work provided in the areas of punctuation, capitalization, numbers, abbreviations and word mastery. Prerequisite: Placement Test score for WR 115 Introduction to Writing and current enrollment in OA 121A Typing I: Keyboarding/Computers or equivalent.

OA 2.590 READING & CONFERENCE: SECRETARIAL SKILLS

(2-10 class hrs/wk 1-5 cr)

Individualized course covering subject areas of particular interest to the student or areas where additional work is needed. Note: Number of credits is determined by amount of time spent.

OA 2.610 OFFICE PROCEDURES

(6 class hrs/wk 3 cr) Sp

Includes instruction in telephone techniques, job interviewing, word processing applications and office procedures. Students do projects integrating all office skills and techniques. Prerequisite: OA 2.551 Office Communications; OA 122 Typing II: Formatting; WR 115 Introduction to Writing or OA 2.588 Editing Skills for Information Processing; OA 202A Advanced WordPerfect.

OA 2.613 ON-THE-JOB TRAINING FOR SECRETARIES

(3-36 class hrs/wk 1-12 cr) F/W/Sp/Su

Provides supervised employment in a secretarial field, primarily for second-year students to gain practical experience related to the student's major field of interest. Prerequisite: 2.0 GPA; Business Division approval.

OA 2.616 JOB SUCCESS SKILLS I

(1 class hr/wk 1 cr) W

Prepares students to develop the personal dynamics needed to succeed on the job. Includes assessing personality and attitude, building self-confidence, coping with stress, developing good study skills, and appropriate grooming and dress.

OA 2.617 JOB SUCCESS SKILLS II

(1 class hr/wk 1 cr) Sp

Prepares a student for success on the job. Includes resume' writing, job search and interview techniques.

COURSE DESCRIPTIONS

OA 2.644 CIVIL SERVICE PREPARATION

(5 class hrs/wk 1 cr) F/W/Sp/Su
Provides intensive study for the state of Oregon Civil Service tests given for secretarial employment, covering alphabetizing, spelling, arithmetic, number series, English usage and reasoning. Note: Five-week class.

OA 2.647 ADMINISTRATIVE MANAGEMENT

(3 class hrs/wk 3 cr) F
Includes office managerial topics, such as office layout and equipment, supervision of office personnel and human resources, and office ergonomics.

OA 2.652 FILING

(5 class hrs/wk 1 cr) F/W/Sp/Su
Introduces basic principles and information for efficient performance in managing and using records in the office. Note: Five-week class.

OA 2.653 AUTOMATED OFFICE CONCEPTS

(3 class hrs/wk 3 cr) F/W
Introduces and discusses terminology and concepts concerning the automated office, such as word processing, automated records management (micrographics), telecommunications, microcomputers and reprographics.

OA 2.656 INFORMATION PROCESSING PRACTICUM

(4 class hrs/wk 3 cr) F/Sp
Includes a series of in-basket exercises involving handwritten and rough draft copy, revisions and transcription tapes. Exercises are designed to simulate the actual word processing center that handles business typing tasks. Prerequisite: OA 202A Advanced WordPerfect and OA 122 Typing II: Formatting.

OA 2.656M INFORMATION PROCESSING PRACTICUM: MEDICAL REPORTS

(4 class hrs/wk 3 cr) W/Sp
Develops medical transcription skills with written and computer exercises. Student is required to prepare typical documents that are encountered in the medical environment. Prerequisite: OA 202A Advanced WordPerfect; OA 122 Typing II: Formatting; AH 5.630 Medical Terminology I.

OA 2.656L INFORMATION PROCESSING PRACTICUM: LEGAL

(4 class hrs/wk 2 cr) W
Self-directed course designed to give the students practical hands-on microcomputer experience. Student assumes they are employed in a legal office. They are responsible for organizing their work efficiently, prioritizing, making formatting decisions, and meeting deadlines. Prerequisite: OA 2.527 Transcribing Machines I; OA 202A Advanced WordPerfect; OA 122 Typing II: Formatting.

OA 2.662 LEGAL TRANSCRIPTION

(5 class hrs/wk 1-3 cr) F/W/Sp/Su
Stresses the ability of students to take instruction via the dictaphone and to type legal documents verbatim. Prerequisite: OA 2.527 Transcribing Machines I; OA 2.675 Legal Office Procedures and Terminology I.

OA 2.670 MEDICAL OFFICE PROCEDURES

(6 class hrs/wk 3 cr) Sp
Stresses the specifics of working in a medical office, including insurance, medical records, administrative office procedures, receptionist techniques and communications. Prerequisite: OA 122 Typing II: Formatting; WR 115 Introduction to Writing or OA 2.588 Editing Skills for Information Processing.

OA 2.671 MEDICAL LAW AND ETHICS

(2 class hrs/wk 2 cr) W
Includes licensing, confidentiality, legal relationship of physician and patient, and legal and ethical responsibilities of medical personnel.

OA 2.672 MEDICAL CODING PROCEDURES

(3 class hrs/wk 3 cr) W
An introductory course for the beginning coder. Students learn to accurately apply the ICD-9-CM coding classification system used in hospitals and medical offices and to understand its statistical and reimbursement applications. Prerequisite: AH 5.630 Medical Terminology I.

OA 2.673 COMPUTERIZED MEDICAL ACCOUNTS RECEIVABLE

(4 class hrs/wk 3 cr) W/Sp
Provides hands-on experience with Medical Manager, a computerized medical software package that includes accounts receivable, scheduling, word processing and insurance billing.

OA 2.675 LEGAL TERMINOLOGY & OFFICE PROCEDURES I

(3 class hrs/wk 3 cr) W
Covers the basic elements of working in a legal office. Following topics are presented: ethics, human relations, receptionist's duties, telephone, mail, filing/finding, time management, work simplification, law office accounting, general legal terminology and supplies. Prerequisite: OA 121 Typing I: Keyboarding/Computers or equivalent.

OA 2.676 LEGAL TERMINOLOGY & OFFICE PROCEDURES II

(6 class hrs/wk 3 cr) Sp
Information concerning real property, probate, bankruptcies and business entities is learned and projects are typed. Prerequisite: OA 2.588 Editing Skills for Information Processing; OA 201A Beginning WordPerfect.

OA 2.677 LEGAL TERMINOLOGY & OFFICE PROCEDURES III

(6 class hrs/wk 3 cr) F
Helps students understand the litigation process—both civil and criminal. Students type the pleadings to support the litigation. Appeals are discussed, as well as Latin and medical terms used in the legal field. Prerequisites: OA 122 Typing II: Formatting or equivalent; OA 2.588 Editing Skills for Information Processing.

OA 2.682 DESKTOP PUBLISHING

(4 class hrs/wk 3 cr)
Extends traditional word processing to encompass the use of page-layout of documents for the office. Students work with WordPerfect graphics and PageMaker. Includes designing forms. Note: Five-week class. Prerequisite: OA 201A Beginning WordPerfect.

OA 2.683 COMPUTERIZED RECORDS MANAGEMENT

(4 class hrs/wk 3 cr)
Introduces students to Paradox data base software. Covers basic records management theory and principles as related to computer data bases and general office records management.

PE Physical Education

PE 131 INTRODUCTION TO HEALTH AND PHYSICAL EDUCATION

(3 class hrs/wk 3 cr) W

Surveys professional opportunities in the area of Health and Physical Education. A basic philosophy of physical education and health is provided as well as objectives. Qualifications of a variety of related occupations are discussed. This is a required course for all Physical Education and Health majors.

PE 180A INTERMEDIATE BASKETBALL: WOMEN

(3 class hrs/wk 1 cr)

Advances the beginning basketball player's skills toward better success in a game situation.

PE 180B ADVANCED BASKETBALL: WOMEN

(3 class hrs/wk 1 cr) F/W

Prepares the student for competition at the intercollegiate level. Note: Requires five meetings a week plus participation in 30 games. Prerequisite: Instructor approval.

PE 180C BASKETBALL SKILLS: WOMEN

(3 class hrs/wk 1 cr)

For women interested in pursuing basketball as an intercollegiate sporting activity. Provides opportunity for refinement and improvement of fundamental skills.

PE 180D ADVANCED VOLLEYBALL: WOMEN

(3 class hrs/wk 1 cr) F

Prepares students for competition at the intercollegiate level. Emphasizes the development of skills for competitive play. Prerequisite: Instructor approval.

PE 1851 BEGINNING VOLLEYBALL: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp

Introduces the skills and techniques basic to volleyball, including different offensive and defensive forms of team play, strategies, etiquette and rules of the game.

PE 1851 INTERMEDIATE VOLLEYBALL: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp

Emphasizes increasing a player's abilities within a team situation. Designed for the player who has mastered beginning volleyball skills.

PE 1851 ADVANCED VOLLEYBALL: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp

Increases skill levels and mental strategies, with emphasis on increasing a player's abilities within a team situation.

PE 1852 WALK FOR HEALTH

(3 class hrs/wk 1 cr) F/W/Sp

Emphasizes aerobic activity with a balance of stretching and strengthening activities. Instruction focuses on fitness walking mechanics, physiological effects of cardiovascular activity and important equipment.

PE 1854 WEIGHT TRAINING

(3 class hrs/wk 1 cr)

Presents basic principles and methods of progressive weight training for the individual who has little or no background in weight training. Develops overall fitness and help with body weight control.

PE 1855 RELAXATION

(3 class hrs/wk 1 cr) F/W/Sp

Provides individual skill practice in relaxation techniques that produce a physiological response to stress relief.

PE 1856 SKIING

(8 class hrs/wk 1 cr) W

Provides opportunity for students to have on-slope instruction at local ski facility by ski instructors. Note: Eight-week class.

PE 185A AEROBIC WEIGHT TRAINING

(3 class hrs/wk 1 cr) F/W/Sp/Su

For students of all fitness levels and skills. Very structured and uplifting circuit training class that works to improve one's overall fitness level.

PE 185B WATER AEROBICS

(3 class hrs/wk 1 cr) F/W/Sp

Designed to develop total body tone, strengthening and firming of stomach, legs, hips, thighs, arms and upper body. Exercises include stretching and flexibility, cardiovascular warm-up and muscle toning.

PE 185B INTERMEDIATE WATER AEROBICS

(3 class hrs/wk 1 cr) W/Sp

Designed to improve cardiovascular fitness through an individual water workout program.

PE 185D BEGINNING BADMINTON:

(3 class hrs/wk 1 cr) F/W/Sp

Provides instruction and practice in stances, grips, service, strokes, scoring, rules and strategy. Demonstrates singles and doubles play, plus teamwork involved.

PE 185D INTERMEDIATE BADMINTON: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp

Presents more advanced instruction and practice in stances, grips, service, strokes, scoring, rules and strategy. Demonstrates singles and doubles play, plus teamwork involved.

PE 185F BOWLING

(3 class hrs/wk 1 cr) F/W

Stresses bowling fundamentals. Provides basic foundation from which students may progress to advanced bowling skills.

PE 185F INTERMEDIATE BOWLING: CO-ED

(3 class hrs/wk 1 cr) W

Increases skills and techniques of bowling. Rules and courtesies of the game as well as social and recreational value to the student are stressed.

PE 185F ADVANCED BOWLING: CO-ED

(3 class hrs/wk 1 cr)

Continues the emphasis on increasing the student's bowling skills and techniques. Rules and courtesies of the game as well as social and recreational value to the student are stressed.

PE 185G BODY CONDITIONING: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp

Provides instruction and practice in exercises that condition the body. Develops a level of strength, flexibility and endurance that enables students to maintain an erect carriage, complete their work, participate in active recreation and possess a reserve of energy.

PE 185H BODY TONING

(3 class hrs/wk 1 cr) F/W/Sp

Course is designed to develop total body tone, strengthening and firming of stomach, legs, hips, thighs, arms and upper body. Exercises include stretching and flexibility, cardiovascular warm-up and muscle toning.

PE 185J AEROBIC DANCE

(3 class hrs/wk 1 cr) F/W/Sp

Provides an exercise program choreographed to music and designed to tone, trim and firm all body muscle groups as it strengthens and conditions the cardiovascular system.

PE 185L FLEXIBILITY FOR HEALTH

(3 class hrs/wk 1 cr) F/W/Sp

Stretching exercises conducted through each class session assure student of substantial gains in flexibility. Provides latest stretching techniques, injury prevention and rehabilitation, back care and a practical knowledge of muscle anatomy; instructed in a relaxing atmosphere.

PE 185M GOLF: CO-ED

(3 class hrs/wk 1 cr) F

Introduces the mental and physical needs involved in golf, including grip, stance, swing techniques, rules, strategy and etiquette.

COURSE DESCRIPTIONS

PE 185M INTERMEDIATE GOLF: CO-ED

(3 class hrs/wk 1 cr) F/Sp
Provides a more detailed presentation of golf techniques and strategy to improve and correct basic swing errors.

PE 185M ADVANCED GOLF: CO-ED

(3 class hrs/wk 1 cr) F/Sp
Provides a detailed presentation of golf technique and strategy to improve and correct basic swing errors. Also includes on-course play.

PE 185O BEGINNING ROAD RUNNING

(3 class hrs/wk 1 cr)
Provides preparatory information for individuals of any skill level who are interested in beginning to participate in fun runs or road runs. Helps individuals with training programs and provides practical experience in dealing with situations that may be encountered during a run.

PE 185O INTERMEDIATE ROAD RUNNING

(3 class hrs/wk 1 cr)
Continues PE 185O for individuals with road running experience who are interested in improving their fitness and performance. Students can participate in group runs; long, slow distance runs; and interval workouts. Bolsters lactate threshold, VO2 max and running economy.

PE 185P JOGGING

(3 class hrs/wk 1 cr) F/Sp
Provides instruction and practice in jogging to increase maximum amount of oxygen that the body can process in a given time.

PE 185Q KARATE

(2-3 class hrs/wk 1 cr) F/W/Sp
Introduces basic TAE Kwon Do (Korean Karate). Includes blocks, kicks, punches, forms and some freestyle. Emphasizes establishing and maintaining good body condition.

PE 185Q INTERMEDIATE KARATE: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp
Teaches Karate skills in blocking, kicking, punches and forms. Emphasizes body condition and physical fitness. Prerequisite: Basic skills acquired in TAE Kwon Do or Beginning Karate course, or instructor approval.

PE 185R PHYSICAL FITNESS

(3 class hrs/wk 1 cr)
Helps students develop total body fitness through exercise.

PE 185T RACQUETBALL

(2 class hrs/wk 1 cr)
Provides instruction and practice in stances, grips, service strokes, scoring rules and strategy. Demonstrates singles and doubles play.

PE 185T INTERMEDIATE RACQUETBALL: CO-ED

(2 class hrs/wk 1 cr)
Provides more advanced instruction and practice in racquetball, with a detailed presentation of technique strategy.

PE 185V BEGINNING SOCCER

(3 class hrs/wk 1 cr) F/Sp
Introduces the skills and techniques basic to soccer. Also emphasizes the beginning strategies of offensive and defensive play.

PE 185W SOFTBALL

(3 class hrs/wk 1 cr) Sp
Provides instruction and experience in fundamental softball skills, as well as providing game experience. Emphasizes slow pitch rather than fast pitch style of play.

PE 185X ARCHERY

(3 class hrs/wk 1 cr)
Introduces the fundamentals of archery, safety and proper use of equipment.

PE 185X BEGINNING SWIMMING

(3 class hrs/wk 1 cr) F/W/Sp
Covers basic water skills and safety while in or about the water.

PE 185X INTERMEDIATE SWIMMING: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp
Provides instruction and practice in individual water skills and safety while in, on or about the water. Includes the elements of good swimming.

PE 185X ADVANCED SWIMMING: CO-ED

(3 class hrs/wk 1 cr) F/W/Sp
Provides instruction and practice in skills to increase endurance and versatility in the water.

PE 185Y TENNIS

(3 class hrs/wk 1 cr) F/Sp
Provides instruction and practice in rules, etiquette, grip, stance, forehand and backhand drives, service, volley, lob, overhead smash, receiving, playing position and class play, and game strategy for both singles and doubles.

PE 185Y INTERMEDIATE TENNIS: CO-ED

(3 class hrs/wk 1 cr) F/Sp
Covers advanced tennis strategies and skills.

PE 185Y ADVANCED TENNIS: CO-ED

(3 class hrs/wk 1 cr) F/Sp
Prepares students for competition, emphasizing development of skills for competitive play. Prerequisite: Instructor approval.

PE 185Z ADVANCED TRACK

(3 class hrs/wk 1 cr) W/Sp
Provides individualized practice in and concentration on developing skills and techniques in selected track and field events.

PE 185Z ADVANCED TRACK: WOMEN

(3 class hrs/wk 1 cr) F/Sp
Provides sophisticated skill and technique training in all track and field events in preparation for competitive intercollegiate competition.

PE 185Z TRACK SKILLS: WOMEN

(3 class hrs/wk 1 cr) F/W/Sp
Provides individualized practice in and concentration on developing skills and techniques in selected track and field events.

PE 185Z TRACK CONDITIONING

(3 class hrs/wk 1 cr) F/W/Sp
Provides physical training and skill development for competitive track and field.

PE 190A BASEBALL CONDITIONING

(3 class hrs/wk 1 cr) W
Emphasizes physical conditioning that develops strength and agility for better efficiency in baseball skills.

PE 190B BASEBALL SKILLS/HITTING

(3 class hrs/wk 1 cr) F/W/Sp
Enables student to refine basic baseball skills in hitting, fielding and throwing. Team offensive and defensive strategies and alignments also are covered.

PE 190C BEGINNING BASEBALL

(3 class hrs/wk 1 cr) F/W/Sp
Introduces fundamental baseball skills.

PE 190D ADVANCED BASEBALL

(3 class hrs/wk 1 cr) Sp
Prepares students for intercollegiate competition in baseball.

PE 190E BASEBALL FITNESS

(3 class hrs/wk 1 cr) W/Sp
Improves the student's athletic abilities in the areas of hitting, fielding and pitching. Various skill drills are incorporated to help the participants improve their overall effectiveness in the game of baseball.

COURSE DESCRIPTIONS

PE 190F BASEBALL SKILLS DEVELOPMENT

(3 class hrs/wk 1 cr) W

Offers students the opportunity to learn and improve individual baseball skills.

PE 190G BEGINNING BASKETBALL

(3 class hrs/wk 1 cr)

Covers basic basketball skills and concepts for the beginner. Starts with fundamentals and works toward a full-court situation.

PE 190H ADVANCED BASKETBALL

(3 class hrs/wk 1 cr) F/W/Sp

Prepares the student for competition at the intercollegiate level. Note: Requires five meetings a week plus participation in 30 games. Prerequisite: Instructor approval.

PE 190I INTERMEDIATE BASKETBALL

(3 class hrs/wk 1 cr) F/W

Advances the beginning basketball player's skills toward better success in a game situation.

PE 190J BASKETBALL CONDITIONING

(3 class hrs/wk 1 cr) F

Prepares the student for competition at the intercollegiate level.

PE 190K BASKETBALL SKILLS

(3 class hrs/wk 1 cr) F

Prepares students for competing at the intercollegiate level. Continues improvement on conditioning, plus development of on-court skills. Prerequisite: Instructor approval.

PE 190L FLAG FOOTBALL

(3 class hrs/wk 1 cr) F/Sp

Develops the skills fundamental to flag football. Note: Organization of class depends upon skill level.

PE 194A PROFESSIONAL ACTIVITIES: BASKETBALL/VOLLEYBALL

(4-6 class hrs/wk 2 cr) W

Basketball: Provides technical information for prospective basketball instructors. Students learn classroom techniques and teaching strategies in the area of basketball. *Volleyball:* Provides technical information on how to perform individual skills, offensive and defensive styles, and strategies of play and practical experience for prospective teachers of physical education.

PE 194C PROFESSIONAL ACTIVITIES: GOLF/TENNIS

(4-6 class hrs/wk 2 cr) Sp

Golf: Provides prospective physical education teachers with a framework for golf instruction. Includes lecture, skill development, strategies and course play. *Tennis:* Provides prospective physical education instructors a working knowledge of tennis fundamentals and strategies. Combines both lecture and on-court activities.

PE 194D PROFESSIONAL ACTIVITIES: SOFTBALL/BADMINTON

(4-6 class hrs/wk 2 cr) Sp

Softball: For students seeking a career in physical education. Covers basic skills and fundamentals and demonstrates proper teaching strategies for softball.

Badminton: Provides a nucleus of material for future badminton instructors. Combines lecture and on-court play.

PE 194E PROFESSIONAL ACTIVITIES: SWIMMING

(4-6 class hrs/wk 2 cr) F

Provides prospective physical education instructors knowledge and skills to teach, effectively and safely, basic swimming skills. Includes lecture and in-water skill instruction.

PE 194F PROFESSIONAL ACTIVITIES: TRACK

(4-6 class hrs/wk 2 cr) F

Provides prospective physical education teachers a 12-week class that includes technical information and learn-by-doing activities for all track and field events.

PE 194G PROFESSIONAL ACTIVITIES: TENNIS/BADMINTON

(4-6 class hrs/wk 2 cr) Sp

Tennis: Provides prospective physical education instructors a working knowledge of tennis fundamentals and strategies. Combines both lecture and on-court activities.

Badminton: Provides a nucleus of material for future badminton instructors. Combines lecture and on-court play.

PE 194H PROFESSIONAL ACTIVITIES: WEIGHT TRAINING/AEROBIC FITNESS

(4-6 class hrs/wk 2 cr)

Weight Training: Provides technical and in-depth information for students seeking a future in teaching weight training. Includes lecture on and participation in weight training.

Aerobic Fitness: Provides prospective physical education instructors with the knowledge and skills to teach effectively various forms of aerobic fitness. Emphasizes areas such as aerobic dance, step aerobics and water aerobics. Includes lecture and aerobic activity.

PE 231 LIFETIME WELLNESS

(3 class hrs/wk 3 cr) F/W/Sp

Evaluates the present status of the student's total wellness level. As a result of this evaluation, an exercise prescription, information on nutrition, stress management and psychological health are made available to the participant. Preparing the student to enter the workplace as a healthy individual and to maintain this level of wellness are major goals of the class.

PE 232 BACKPACKING/ORIENTEERING

(3 class hrs/wk 3 cr) F/Sp/Su

Prepares the individual for safe, challenging and enjoyable wilderness trips. Emphasizes physical conditioning, equipment, clothing, food, safety and the use of map and compass.

PE 280A CWE PHYSICAL EDUCATION

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to physical education. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

PE 280B CWE RECREATION

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to recreation. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

COURSE DESCRIPTIONS

PE 292 WATER SAFETY INSTRUCTION

(6 class hrs/wk 2 cr) F/Sp
Trains individuals to teach all the basic swimming and water safety classes of the American Red Cross. Note: Six-week class.

PE 299A LIFEGUARD TRAINING

(6 class hrs/wk 2 cr) F/Sp
Provides the necessary minimum skills training for a person to qualify to serve as a non-surf guard. Note: Six-week class.

PE 299C ADVANCED LIFETIME WELLNESS

(3 class hrs/wk 3 cr) W/Sp
Builds upon the comprehensive principles acquired through the Lifetime Wellness course by allowing the student to investigate selected wellness issues in greater detail. A hands-on approach to wellness topics provides a level of skill and understanding that should be of practical value for personal as well as professional needs.

PH Physics

● **PH 201, 202, 203 GENERAL PHYSICS**

◆ (7 class hrs/wk 5 cr) F/W/Sp
College-level course for students planning to transfer to a four-year college or university. PH 201, motion, forces, momentum, energy; PH 202, heat, vibrations, wave motion, sound, light; PH 203, electricity and magnetism, atomic and nuclear physics, special relativity. Note: Must be taken in sequence. Calculator with trigonometric functions, logarithms and scientific notation required. Prerequisite to PH 201: MTH 111 College Algebra; MTH 112 Trigonometry. Prerequisite to PH 202: PH 201 General Physics. Prerequisite to PH 203: PH 201, 202 General Physics.

● **PH 211, 212, 213 GENERAL PHYSICS WITH CALCULUS**

◆ (7 class hrs/wk 5 cr) F/W/Sp
Presents calculus-based principles of physics for students in science and engineering. PH 211, linear motion, forces, momentum, energy, rotational motion, angular momentum, fluid mechanics; PH 212, harmonic motion, waves, sound, thermodynamics, static and direct current electricity; PH 213, alternating current electricity, magnetism, induced emf, inductance, LC oscillations, LRC circuit, Maxwell's equations, electromagnetic waves, light, optics, diffraction. Note: Must be taken in sequence. Calculator with trigonometric functions, logarithms, scientific notation and linear regression required. Prerequisite to PH 211: MTH 251 Calculus; Corequisite to PH 211: MTH 252 Calculus. Prerequisite to PH 212: PH 211 General Physics; MTH 252 Calculus; Corequisite to PH 212: MTH 253 Calculus. Prerequisite to PH 213: PH 211, PH 212 General Physics; MTH 253 Calculus.

PH 280 CWE PHYSICS

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to physics. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

PH 4.310 INTRODUCTORY PHYSICS

(3 class hrs/wk 3 cr) F
Provides an introductory-level course for vocational students and others who require knowledge of basic physics principles. Topics include mechanics, heat, electricity, magnetism, light and sound. Prerequisite: MTH 60 Beginning Algebra or equivalent.

PHL Philosophy

PHL 198 INDEPENDENT STUDIES

(1 class hr/wk 1 cr)
Offers selected philosophy topics for independent research. Prerequisite: Instructor approval.

➤ **PHL 201 INTRODUCTION TO PHILOSOPHY**

(3 class hrs/wk 3 cr)
Introduces the philosophical task, the major areas of philosophical speculation and the role critical thinking plays in everyday life.

➤ **PHL 202 ELEMENTARY ETHICS**

(3 class hrs/wk 3 cr)
Develops the idea of humans as moral agents and considers critically various interpretations of the ideals and standards of moral conduct.

➤ **PHL 215 HISTORY OF WESTERN PHILOSOPHY**

(3 class hrs/wk 3 cr) Sp
Studies Western philosophy from the ancient Greeks to the 20th century.

PHL 298 INDEPENDENT STUDY: LOGIC

(1 class hr/wk 1 cr)
Offers individual study of patterns of logic, rules of inference through formalized logical language and techniques of deductive and predicate logic.

PHO Photography

PHO 198 INDEPENDENT STUDIES

(2-6 class hrs/wk 1-3 cr) F/W/Sp
Offers individual instruction in advanced problems relevant to the student's interest and needs. Prerequisite: Instructor approval.

PHO 253 ZONE SYSTEM PHOTOGRAPHY

(4 class hrs/wk 3 cr)
Introduces the zone system approach and fine print techniques as applied to 35mm and medium-to-large format black-and-white photography, including exposure controls, development adjustments, film indexing, printing controls, toning and expressive composition. Prerequisite: PHO 261 Introduction to Photography or instructor approval.

PHO 261 INTRODUCTION TO PHOTOGRAPHY

(4 class hrs/wk 3 cr) F/W/Sp
Introduces black-and-white photography, including exposure, camera handling, composition, light, developing and printing, history and styles. Limited number of cameras available for checkout. Lab work included.

PHO 262 INTERMEDIATE PHOTOGRAPHY

(4 class hrs/wk 3 cr) Sp
Studies advanced black-and-white darkroom techniques with fibre papers, including archival processing; use of toners, bleaches and intensifiers; direct-positive processing; solarization; double-printing; hand coloring; and other print manipulation techniques. Lab work included. Prerequisite: PHO 261 Introduction to Photography or instructor approval.

PHO 263 COLOR PHOTOGRAPHY

(4 class hrs/wk 3 cr) W
Introduces color theory and practice, including exposure and processing of color negative and positive films, printing from negatives and slides, color balance and composition, and alternative processes. Lab work included. Prerequisite: PHO 261 Introduction to Photography or instructor approval.

PS Political Science

■ **PS 104 PROBLEMS IN AMERICAN POLITICS**

(3 class hrs/wk 3 cr)
Explores current policy issues in American politics, which may range from international to national to local topics. Examples include unemployment, military affairs, civil rights and education.

PS 198 RESEARCH TOPICS

(1 class hr/wk 1 cr)
Examines in-depth selected political science topics for independent research. Corequisite: WR 123 English Composition.

COURSE DESCRIPTIONS

■ **PS 201 AMERICAN GOVERNMENT: POLITICAL PROCESSES**

(3 class hrs/wk 3 cr) F
Examines the national political process. Focuses on the structure of the United States, including the functions, sources and uses of power in American Politics.

■ **PS 202 AMERICAN GOVERNMENT: INSTITUTIONS**

(3 class hrs/wk 3 cr) W
Examines national governmental institutions. Focuses on public policy making, what political institutions do and how they do it, and the mechanisms and outcomes of the policy-making process.

■ **PS 203 AMERICAN GOVERNMENT: STATE & LOCAL**

(3 class hrs/wk 3 cr) Sp
Examines government at the state and local level. Focuses on local political institutions and the relationship of citizens to them. Special emphasis is placed on the meaning and operation of participatory institutions.

■ **PS 204 GOVERNMENT REGULATION OF BUSINESS & ECONOMY**

(3 class hrs/wk 3 cr)
Presents an analysis of selected U.S. national government policies and regulatory devices in areas of business and the economy. Emphasizes the background, development, administration and content of government regulatory policies in areas such as business, labor, agriculture, energy, natural resources and civil rights.

■ **PS 205 INTERNATIONAL RELATIONS**

(3 class hrs/wk 3 cr) F/W/Sp
Examines the historical development of relations among nations, emphasizing predominant economic and political characteristics of the contemporary international system. Topics include problems of development, imperialism, world environmental and resource issues, and international conflict.

■ **PS 206 COMPARATIVE EUROPEAN GOVERNMENTS**

(3 class hrs/wk 3 cr)
Introduces the foundations and processes of governmental policy making in European nations examined within a historical and comparative framework.

■ **PS 207 INTRODUCTION TO POLITICAL SCIENCE**

(3 class hrs/wk 3 cr) F/W/Sp
Introduces theories, concepts and research methods appropriate to understanding how conflicts among people are resolved. Emphasizes political analysis, including comparative study of political behavior and institutions.

■ **PS 220 U.S. FOREIGN POLICY**

(3 class hrs/wk 3 cr)
Analyzes selected U.S. foreign policy problems and experiences through case studies. Places foreign policy in the perspective of history and the context of international political, economic and strategic issues. Explores the diversity of perceptions about U.S. foreign relations.

■ **PS 252 CONSTITUTIONAL LAW**

(3 class hrs/wk 3 cr) W
Studies basic principles of the U.S. Constitution with emphasis on leading Supreme Court cases and the Bill of Rights.

PS 280 CWE POLITICAL SCIENCE

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to political science. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

PSY Psychology

■ **PSY 101 PSYCHOLOGY AND HUMAN RELATIONS**

(3 class hrs/wk 3 cr) F/W
Focuses on the practical application of psychology to relations with people in everyday situations. Topics include self-concept, social perception, emotions, needs, values, healthy relationships, interpersonal communications, conflict and behavioral change.

■ **PSY 110 UNDERSTANDING HUMAN BEHAVIOR**

(3 class hrs/wk 3 cr)
Develops the scientific approach to the study of human behavior. Integrates physiological, intrapsychic and social/behavioral perspectives on human thought and behavior.

PSY 198 INDEPENDENT STUDIES: RESEARCH TOPICS

(1 class hrs/wk 1 cr)
Provides in-depth examination of a selected psychological topic to develop skills in independent research. Intended primarily for the psychology major. Prerequisite: WR 123 English Composition. Corequisite: PSY 203 General Psychology to be taken prior to or concurrently with PSY 198.

■ **PSY 201 GENERAL PSYCHOLOGY**

(3 class hrs/wk 3 cr) F/W/Sp
Introduces principles and theories of human behavior. Stresses the biological and developmental aspects, including the senses and perceptual processes. Note: Recommended for second-year students.

■ **PSY 202 GENERAL PSYCHOLOGY**

(3 class hrs/wk 3 cr) W/Sp
Surveys psychological processes of learning and memory, language and thought, motivation and emotion. Prerequisite: PSY 201 General Psychology.

■ **PSY 203 GENERAL PSYCHOLOGY**

(3 class hrs/wk 3 cr) Sp
Describes individual differences and methods of measurements. Discusses personality theory, conflict and stress, and abnormal and social psychology. Prerequisite: PSY 202 General Psychology.

■ **PSY 213 INTRODUCTION TO PHYSIOLOGICAL PSYCHOLOGY**

(3 class hrs/wk 3 cr)
Introduces the physiological processes underlying behavior; emphasizes the human brain, its functions, its common pathologies and its many mysteries.

■ **PSY 215 INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY**

(3 class hrs/wk 3 cr) W/Sp
Outlines cause of psychological/physical development from conception to death. Emphasizes how and why human beings change (or remain the same) from their beginnings to their last years of life.

■ **PSY 216 SOCIAL PSYCHOLOGY**

(3 class hrs/wk 3 cr) Sp
Surveys the influence of psychology on culture, society, groups and individuals. Topics include group dynamics, leadership, socialization, attitude change and achievement of goals. Emphasizes learning to use social psychology in life situations. Note: Will not substitute for PSY 201, 202, 203 General Psychology sequence.

■ **PSY 231 HUMAN SEXUALITY**

(3 class hrs/wk 3 cr) F/W
Discusses the biological, social and psychological aspects of human sexual functioning. Emphasizes sexual response patterns, sexual attitudes, sexual myths and fallacies.

■ **PSY 235 HUMAN DEVELOPMENT: CHILD**

(3 class hrs/wk 3 cr) F
Discusses theoretical perspectives and social, physiological and psychological forces that impact on the stages of development from conception to puberty.

COURSE DESCRIPTIONS

■ PSY 236 HUMAN DEVELOPMENT: ADULT

(3 class hrs/wk 3 cr) W

Introduces human development through theoretical perspectives and social, physiological and psychological forces that impact on the stages of development from adolescence to old age.

■ PSY 237 HUMAN DEVELOPMENT: AGING

(3 class hrs/wk 3 cr) Sp

Emphasizes adult development from a multi-disciplinary perspective, focusing on issues and transitions of later life. Includes biological/psychological aging, health issues, patterns of successful aging, grandparenthood and kinship relations.

PSY 280 CWE PSYCHOLOGY

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to psychology. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

R Religion

► R 101 INTRODUCTION TO RELIGIOUS STUDIES

(3 class hrs/wk 3 cr)

Examines the nature of religion as experienced historically and globally. Explores the nature of religious experience and the divine; the compatibility of science and religion; and the nature of religious language, myth and symbol.

► R 102 RELIGIONS OF WESTERN WORLD

(3 class hrs/wk 3 cr)

Investigates religion in the Western World. Includes discussion of Judaism, Christianity and Islam. Focuses on how the outward forms of religious expression integrate with other cultural traditions.

► R 103 RELIGIONS OF EASTERN WORLD

(3 class hrs/wk 3 cr)

Investigates religion in the Eastern World. Includes discussion of Hinduism, Buddhism and Taoism. Focuses on how the outward forms of religious expression integrate with other cultural traditions.

R 198 INDEPENDENT STUDIES

(1 class hr/wk 1 cr)

Offers selected topics of study in religion with individual research and/or field study. Corequisite: WR 123 English Composition.

► R 211 THE OLD TESTAMENT: HISTORICAL BACKGROUND

(3 class hrs/wk 3 cr)

Describes the history and culture of the Hebrew people, including conditions affecting the production of the Old Testament.

► R 212 THE NEW TESTAMENT: HISTORICAL BACKGROUND

(3 class hrs/wk 3 cr)

Discusses the historical developments of the New Testament, including development of Christianity and its significance in human experience.

RD Reading

RD 103 EFFECTIVE READING

(3 class hrs/wk 3 cr) F/W/Sp/Su

Develops skills for students with average reading skills who need to improve their efficiency to cope successfully with college reading materials. Improves comprehension, builds vocabulary and increases reading speed. Note: A minimum competency is required to pass this course. Prerequisite: Placement is made by test results.

RD 120 CRITICAL READING AND THINKING

(3 class hrs/week 3 cr) F/W/Sp

Develops higher level reading skills for students who want to develop the more advanced reading and critical thinking skills. Improves analytical and inferential comprehension skills and critical thinking, builds vocabulary and increases reading rate. Note: A minimum competency is required to pass this course. Prerequisite: Placement is made by test results.

RD 1.175 READING IMPROVEMENT I

(3 class hrs/wk 3 cr) F/W/Sp/Su

Develops fundamental reading skills for students who experience severe difficulty when attempting to read college textbooks. Improves comprehension, builds vocabulary and increases reading speed. Note: A minimum competency is required to pass this course. Prerequisite: Placement is based on test results.

RD 1.176 READING IMPROVEMENT II

(3 class hrs/wk 3 cr) F/W/Sp/Su

Develops fundamental reading skills for students who have considerable difficulty when attempting to read college textbooks. Improves comprehension, builds vocabulary and increases reading speed. Note: A minimum competency is required to pass this course. Prerequisite: Placement is based on test results.

RH Refrigeration, Heating & Air Conditioning

RH 3.527 ALTERNATIVE ENERGY SOURCES

(3 class hrs/wk 3 cr) F

Introduces students to traditional energy usage, energy conservation and the supplemental role alternative sources play today and in the future. Energy sources, such as nuclear, hydroelectric, solar, wind and bio mass, are evaluated for their potential use.

RH 3.542 RHAC GRAPHICS

(2 class hrs/wk 2 cr) Sp

Covers job-related skills in interpreting trade drawings and plans for installing and servicing commercial installations and domestic appliances.

RH 3.552 TRADE & ELECTRICAL COMPONENTS I

(4 class hrs/wk 3 cr) F

Basic course emphasizing specific trade applications of electricity and electrical components for refrigeration, heating and air conditioning. Safety, basic function and application of individual components and equipment are covered.

RH 3.553 TRADE & ELECTRICAL COMPONENTS II

(4 class hrs/wk 3 cr) W

Continues the application of the various components used in refrigeration, heating and air conditioning. Lab classes include wiring required circuits and extensive use of test meters.

RH 3.580 INTRODUCTION TO REFRIGERATION/HEATING/AIR CONDITIONING

(9 class hrs/wk 6 cr) F

Covers the history of refrigeration; types of jobs available; safety, theory and terminology; soldering and brazing skills; tools; and basic operations within the industry.

RH 3.583 PRINCIPLES OF REFRIGERATION

(9 class hrs/wk 6 cr) W
Includes refrigeration system component operations and assembling, evacuation and charging techniques. Domestic refrigeration equipment repair and testing also are emphasized.

RH 3.584 SHEET METAL BASICS

(6 class hrs/wk 4 cr) W
Introduces sheet metal design and layout of fittings. Students master the use of hand tools and machine forming to construct fittings for HVAC installation.

RH 3.585 PRINCIPLES OF HEATING

(9 class hrs/wk 6 cr) Sp
Helps students gain experience, through lecture and related laboratory projects, in the latest technology in installing, maintaining, troubleshooting and repairing heating systems.

RH 3.587 OPERATION PRINCIPLES OF AIR CONDITIONING

(9 class hrs/wk 6 cr) W
Introduces the uses of conditioned air and psychometrics in the air conditioning industries. Principles of air movement, total body comfort, air distribution systems, heating and cooling load calculations, and air balancing are covered.

RH 3.588 PNEUMATIC CONTROLS

(6 class hrs/wk 4 cr) F
Covers the design, application, terminology and maintenance of pneumatic control systems and components. Specialized pneumatic control tools and theory relating to the heating, ventilating and air conditioning trade are stressed.

RH 3.589 DIAGNOSIS, SERVICE & REPAIR

(9 class hrs/wk 6 cr) F
Covers the domestic and commercial applications in refrigeration, heating and air conditioning systems. Customer relations, related paperwork and electrical troubleshooting skills also are emphasized.

RH 3.590 CONTROL APPLICATION

(6 class hrs/wk 4 cr) W
Examines the installation and operation of refrigerant controls and electrical controls used in the refrigeration and air conditioning industry. Practical application of electrical control circuitry is covered.

RH 3.591 COMMERCIAL & INDUSTRIAL REFRIGERATION

(9 class hrs/wk 6 cr) Sp
Introduces commercial and industrial refrigeration systems and control circuits through lecture, lab and field trips. Absorption and centrifugal chiller theory is covered. Electrical and mechanical troubleshooting is emphasized.

RH 3.592 SYSTEMS DESIGN

(6 class hrs/wk 4 cr) Sp
Covers designing, choosing equipment, drawing and installing various heating systems, including load calculations and pipe sizing.

SD Supervisory Management

SD 101 SUPERVISION: FUNDAMENTALS

(3 class hrs/wk 3 cr) F
Introduces students to current management theory in the areas of motivation, leadership, organization, planning and decision making. Also examines the skills necessary to be an effective supervisor and encourages students to evaluate their own leadership potential. In addition, the course looks at the changing focus of supervision today and examines topics such as information management, business ethics and union influences.

SD 101A BECOMING A SUPERVISOR

(3 class hrs/wk 1 cr) F/Su
A course for men and women who hope to acquire, will soon acquire or have recently acquired supervisory responsibilities. Discusses skills and abilities needed to be an effective supervisor as well as common problems experienced by new supervisors. Students explore ways to enhance their chances of being promoted to the supervisory level of management. Note: Six-week class.

SD 101B SUPERVISION: HUMAN BEHAVIOR

(3 class hrs/wk 1 cr) F/Su
Discusses the "why" behind human behavior. Focuses on individual differences, attitude development and what motivates individuals. Note: Three-week class.

SD 101C SUPERVISION: EFFECTIVE LEADERSHIP

(3 class hrs/wk 1 cr) F/Su
Helps students develop their leadership potential. Explains "what the experts say" about leadership. Also covers key components of leadership: delegation, decision making and problem solving. Note: Three-week class.

SD 102 SUPERVISION: TECHNIQUES

(3 class hrs/wk 3 cr) W
Gives students an introduction and an opportunity to practice skills that are needed to be an effective supervisor (i.e., information gathering, interviewing, disciplining, building teams, doing performance appraisals and coaching employees). Also explores techniques for overcoming change, delegating effectively, handling conflict and managing stress.

SD 102A SUPERVISION: STRESS/ TIME MANAGEMENT

(3 class hrs/wk 1 cr) W
Explores the relationship of conflict, stress and time management as they apply to the role of supervision. Conflict resolution, stress reduction and effective time management techniques are discussed. Also explores ways to avoid job burnout. Note: Three-week class.

SD 102B SUPERVISION: LEGAL ISSUES

(3 class hrs/wk 1 cr) W
Covers the law as it relates to sexual harassment, AIDS in the work place, hiring, firing, disciplining, and drug and alcohol abuse. Students also learn tactics for dealing with these issues in an effective, yet legal, manner. Note: Three-week class.

SD 102C SUPERVISION: IMPROVING PRODUCTIVITY

(3 class hrs/wk 1 cr) W
Studies methods for improving employee productivity. Case studies of companies effectively trying new management techniques and organizational designs are presented. Issues such as participative management, managed communication systems and self-managed work groups are discussed. Note: Three-week class.

SD 103 SUPERVISION: COMMUNICATIONS

(3 class hrs/wk 3 cr) Sp
Increases the student's awareness of the role communication plays in effective supervision. Non-verbal and verbal communications are examined. Students practice active listening skills and effective oral presentations. In addition, the communication skills for conducting employee appraisals, job interviews and employee training, disciplining and coaching are explored.

SD 103A SUPERVISION: EFFECTIVE COMMUNICATION

(3 class hrs/wk 1 cr) Sp
Provides an increased awareness of the role communication plays in effective supervision. Listening, non-verbal and verbal communications skills are examined. Note: Three-week class.

SD 103B SUPERVISION: INTERVIEWING/TRAINING

(3 class hrs/wk 1 cr) Sp
Helps supervisors develop skillful interviewing and training techniques. Two areas of interviewing are stressed -- job interviews and employee appraisal interviews. Effective methods of giving orders, directions and training personnel are explored. Note: Three-week class.

COURSE DESCRIPTIONS

SD 103C SUPERVISION: COACH/DISCIPLINE/ASSIST

(3 class hrs/wk 1 cr) Sp

Teaches effective coaching, disciplining and assisting skills. Emphasizes the skills required for the supervisor of today to meet the challenges of tomorrow. Note: Three-week class.

SD 104 SUPERVISION: APPLIED COMMUNICATIONS

(3 class hrs/wk 3 cr) F

Helps supervisors develop skills in making oral business presentations, conducting productive meetings and writing effective letters and reports. Prerequisite: SD 103 Supervision: Communications or equivalent.

SD 104A SUPERVISION: WRITTEN COMMUNICATION

(3 class hrs/wk 1 cr) F

Presents techniques for writing effective good news, bad news and persuasive letters. Explores techniques for writing effective business reports. Note: Three-week class.

SD 104B SUPERVISION: CONDUCTING A MEETING

(3 class hrs/wk 1 cr) F

Covers the skills necessary to conduct effective meetings. Note: Three-week class.

SD 104C SUPERVISION: BUSINESS PRESENTATION

(3 class hrs/wk 1 cr) F

Assists supervisors in effective oral business presentations. The effective use of visual aids also is explored. Note: Three-week class.

SD 107 SUPERVISORY PSYCHOLOGY

(3 class hrs/wk 3 cr) W

Assists students in understanding the people with whom the supervisor works, emphasizing psychological aspects, perceptions, learning processes, emotions, attitudes and personalities.

SD 112 COMMUNICATING EFFECTIVELY AT WORK

(3 class hrs/wk 3 cr)

Explores supervisory communications in the workplace. Covers reading skills; active listening skills; writing reports, letters and interoffice memos; prepared and extemporaneous presentations; non-verbal communications; and the difference between formal and informal communications.

SD 113 HUMAN RELATIONS IN BUSINESS

(3 class hrs/wk 3 cr) F/W/Sp/Su

Assists the supervisor in understanding the people with whom he or she works, with emphasis on psychological aspects, perceptions, learning processes, emotions, attitudes and personalities.

SD 210 PUBLIC RELATIONS

(3 class hrs/wk 3 cr)

Studies the history, process and practice of promoting rapport and goodwill between a person, firm or institution and other persons, special publics or the community at large. Emphasizes various strategies used for communicating with, and influencing opinions of, other people and/or organizations.

SD 215 SURVEY OF ACCOUNTING

(3 class hrs/wk 3 cr) F

Introduces financial accounting techniques, measuring and recording transactions, and preparing financial statements. Includes discussion of generally accepted accounting principles.

SD 216 FINANCIAL ANALYSIS FOR MANAGERS

(3 class hrs/wk 3 cr) W

Designed to help supervisors use financial accounting information to make managerial decisions. Planning and control devices, such as budgeting, cost accounting, analysis of costs, capital budgeting and break-even analysis, are discussed.

SD 280 CWE SUPERVISION

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to supervisory management. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

SOC..... Sociology

SOC 198 RESEARCH TOPICS

(1 class hr/wk 1 cr)

Requires an in-depth review of current knowledge about a sociological topic. Intended primarily for the sociology major to develop skills in independent research. Prerequisite: WR 123 English Composition.

■ **SOC 204 GENERAL SOCIOLOGY**

(3 class hrs/wk 3 cr)

Introduces the sociological perspective: the components of society and social organization, culture, socialization and stratification.

■ **SOC 205 GENERAL SOCIOLOGY**

(3 class hrs/wk 3 cr) F/W/Sp

Applies sociological perspectives to the study of social change and trends in family, religion, education, economics and politics.

■ **SOC 206 GENERAL SOCIOLOGY**

(3 class hrs/wk 3 cr)

Surveys social issues and movements. Stresses application of basic concepts to contemporary problems in group life.

■ **SOC 214 SOCIAL PROBLEMS: VIOLENCE & AGGRESSION**

(3 class hrs/wk 3 cr) F/W/Sp/Su

Explores and analyzes violence and aggression from biological, psychological and sociological perspectives. Includes topics such as homicide, suicide, rape, assault, mob violence, terrorism, violence within the family and related phenomenon.

■ **SOC 221 JUVENILE DELINQUENCY**

(3 class hrs/wk 3 cr) F/Sp

Defines and surveys the development and patterns of delinquent behavior, institutional control and treatment, and legal methods of dealing with delinquency.

■ **SOC 222 MARRIAGE RELATIONSHIPS**

(3 class hrs/wk 3 cr) F/W/Sp

Examines intimate relationships, courtship, marriage and family patterns -- old, new and unconventional. Focuses on how relationships are built, maintained, changed and terminated. Prerequisite: SOC 204 General Sociology or instructor approval.

■ **SOC 227 SOCIAL PSYCHOLOGY**

(3 class hrs/wk 3 cr)

Surveys the influence of psychology on culture, society, groups and individuals. Topics include group dynamics, leadership, socialization, attitude change and achievement of goals. Emphasizes learning to use social psychology in life situations.

■ **SOC 244 INTRODUCTION TO CRIMINOLOGY**

(3 class hrs/wk 3 cr) F/W/Sp

Introduces major types of criminal behavior, role careers of offenders, factors that contribute to the production of criminality or delinquency, changes of the law in crime control and treatment processes.

SOC 280 CWE SOCIOLOGY

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to sociology. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

SP Speech

SP 111 INTERPERSONAL COMMUNICATION

(3 class hrs/wk 3 cr) F/W/Sp/Su
Develops understanding and effective interpersonal communication skills in listening, verbal and non-verbal communication, self concept and conflict resolution in relationships.

SP 112 FUNDAMENTALS OF SPEECH

(3 class hrs/wk 3 cr) F/W/Sp/Su
Offers projects to develop skill and confidence in speaking before large groups, with emphasis on oral delivery, content, organization, audience motivation and language.

SP 113 INTRODUCTION TO PERSUASION

(3 class hrs/wk 3 cr) F/W/Sp
Introduces argumentation and persuasion, with focus on the theory and practice of persuasive speaking. Includes effective use of speaker credibility, evidence, audience motivation, methods of organization and the rights and responsibilities of persuaders.

SP 199 SPECIAL STUDIES IN SPEECH

(3-9 class hrs/wk 1 - 3 cr)
Offers individual and special studies arranged with an instructor. Note: May be repeated for a maximum of 9 credits.

SP 215 SMALL GROUP COMMUNICATION

(3 class hrs/wk 3 cr)
Studies the communication factors in small group activities, including process and task, leadership, verbal and non-verbal messages, norms and roles, conflict reduction and decision making.

SP 280 CWE SPEECH

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to speech. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

SP 1.103 OCCUPATIONAL SPEECH COMMUNICATION

(3 class hrs/wk 3 cr) F/W/Sp
Emphasizes oral communication skills for vocational/technical students, including telephone usage, interviewing, personal interaction, public speaking and information-sharing and problem-solving situations that may occur on the job.

SPN Spanish

SPN 101, 102, 103 FIRST-YEAR SPANISH I, II, III

(4 class hrs/wk 4 cr) F/W/Sp
Introduces the Spanish language, stressing speaking and reading with exercise in elementary composition. Note: Students whose competence already exceeds the scope of any course within the sequence will not be admitted. Must be taken in sequence, but entrance is permitted at any level.

SPN 111, 112, 113 BEGINNING SPANISH COMMUNICATION

(3 class hrs/wk 3 cr) W/Sp
Continues the study of the language and culture of Latin America and Spain through oral communication. Includes practice in idiomatic usage, vocabulary and aural comprehension.

➤ **SPN 201, 202, 203 SECOND-YEAR SPANISH I, II, III**

(4 class hrs/wk 4 cr) F/W/Sp
Presents intensive oral and written exercises designed to help the student acquire an accurate and fluent use of Spanish. Includes study of selections from representative authors. Note: Must be taken in sequence, but entrance permitted at any level. Prerequisite: SPN 103 First-Year Spanish, or three years high school Spanish equivalent or instructor approval.

➤ **SPN 232 SELECTED READINGS**

(3 class hrs/wk 3 cr)
Presents selected readings from Spanish and Hispanic American literature. May be taught in English or Spanish depending on subjects selected. Does not satisfy foreign language degree requirements.

SPN 280 CWE SPANISH

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to Spanish. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

SS Study Skills

SS 1.122 LEARNING STRATEGIES

(2-3 class hrs/wk 0-2 cr) F/W/Sp
Teaches "how to learn" strategies to students with disabilities. Acquaints students with techniques, principles and rules for learning across different content situations and settings. This course is divided into five areas: Study Skills, Reading Skills, Listening Skills, Writing Skills and Thinking Skills.

SS 1.125 STUDY SKILLS

(3 class hrs/wk 3 cr) F/W/Sp/Su
Provides students the study skills needed to be successful students. Time management, listening and notetaking, reading and studying textbooks, using the library, preparing for examinations and taking examinations are among skills taught. These skills are taught in combination with understanding attitude, motivation and student behavior. Prerequisite: Appropriate reading competence as indicated by college placement test.

SS 1.134 STUDY SKILLS: VOCATIONAL

(2-6 class hrs/wk 0-3 cr) F/W/Sp
Provides individualized instruction to develop specific skills in various vocational programs. The instruction is supplemental to the regular course offerings and does not substitute for that instruction. Diagnosis of deficiencies and interests of students determine level of instruction.

SS 1.150 TECHNIQUES OF STUDYING

(1-3 class hrs/wk 1-3 cr) F/W/Sp
Develops reading comprehension, vocabulary and study skills for students in designated vocational programs. Emphasizes the materials used in the particular program.

SS 1.180 LECTURE READINESS/ STUDY PREPARATION

(6 class hrs .25 cr) F/W/Sp
A pre-notetaking course. Prepares students for effective notetaking by providing an overview of concentration and pre-lecture preparation skills. Self-analysis of skills and problem solving for different classroom lecture situations included.

SS 1.181 TAKING LECTURE NOTES

(10 class hrs .5 cr) F/W/Sp
Covers learning about effective listening techniques, outlining skills and the Cornell method of notetaking and studying. Application activities reinforce concepts in each area.

SS 1.182 STUDYING NOTES/ MAPPING

(6 class hrs .25 cr) F/W/Sp
Introduces students to a variety of mapping models and their use. Presents reviewing and recitation strategies to improve retention of information from the student's notes. Explanation of skills and application practice are included.

COURSE DESCRIPTIONS

SS 1.183A HOW TO READ A TEXTBOOK: PART 1

(6 class hrs .25 credit) F/W/Sp

Prepares students to begin reading textbooks more efficiently. Students learn to utilize aids and instructions provided by the author. Students also will learn to preview effectively so that they know what the textbook is about. The student learns to establish a meaningful purpose for reading a textbook.

SS 1.183B HOW TO READ A TEXTBOOK: PART 2

(10 class hrs .5 cr) F/W/Sp

Subjects covered in this course include reading for main ideas and learning organizational patterns. Students learn to determine the main idea of a paragraph by learning the differences between a topic sentence and a main idea. Students also are exposed to four major types of organizational patterns used by textbook authors. Students become better able to remember and understand textbook material.

SS 1.183C HOW TO READ A TEXTBOOK: PART 3

(6 class hrs .25 cr) F/W/Sp

Prepares students to take textbook notes, including answering questions, outlining, mapping, underlining and highlighting. Students also learn to review for short-term and long-term memory.

SS 1.183D HOW TO READ A TEXTBOOK: PART 3/NURSING

(10 class hrs .5 cr) F/W/Sp

Prepares students to read the three main types of chapters in the primary nursing textbook and to actively become involved in the process of reading a textbook. Students learn the parts of a textbook and how to use the various parts to increase learning.

SS 1.184A STUDYING FOR TESTS

(10 class hrs .5 cr) F/W/Sp

This self-paced mini-course presents strategies for test preparation. Students learn how to anticipate course requirements; plan study time; and the methods for identifying, organizing and actively learning the important information in a course.

SS 1.184B TEST-TAKING TIPS

(6 class hrs .25 cr) F/W/Sp

This self-paced mini-course helps students evaluate their test-taking attitude, develop successful test-taking strategies, manage time during test taking, evaluate test performance and feel more confident with the test-taking process.

SS 1.184C TAKING OBJECTIVE TESTS

(10 class hrs .5 cr) F/W/Sp

This self-paced mini-course helps students understand and practice strategies appropriate for taking the three major types of objective tests.

SS 1.184D TAKING ESSAY TESTS

(6 class hrs .25 cr) F/W/Sp

This self-paced mini-course helps students understand and practice organizational strategies and techniques appropriate for taking different types of essay tests.

SS 1.184E TEST ANXIETY REDUCTION

(6 class hrs .25 cr) F/W/Sp

This self-paced mini-course assists students in understanding the nature of test anxiety and provides practice in relaxation and desensitization techniques. Students also learn methods of tension management to use before and during a test.

SS 1.185 SPEED READING

(10 class hrs .5 cr) F/W/Sp

Exposes students to information about each person's ability to increase reading speed without significant loss in comprehension. Utilizes the computer to provide opportunities to improve eye movement.

SS 1.186A VOCABULARY IMPROVEMENT I

(20 class hrs 1 cr) F/W/Sp

Teaches students who are severely deficient in vocabulary development or students of limited English proficiency to use context clues to determine the meaning of unfamiliar words. Students learn to use words in various contexts.

SS 1.186B VOCABULARY IMPROVEMENT II

(20 class hrs 1 cr) F/W/Sp

Teaches students who are deficient in vocabulary to use context clues to determine the meanings of unfamiliar words. Students learn to use the words in various contexts.

SS 1.186C VOCABULARY IMPROVEMENT III

(20 class hrs 1 cr) F/W/Sp

Teaches students who are somewhat deficient in vocabulary development to use context clues to determine the specific meanings of a word in a given context. Students learn to determine the meanings of words in various contexts.

SS 1.186D VOCABULARY IMPROVEMENT IV

(20 class hrs 1 cr) F/W/Sp

Teaches students who want to improve their vocabulary to determine the meanings of unfamiliar words by using context clues. Students encounter the unfamiliar words in various contexts to learn various meanings.

ST..... SCIENCE & TECHNOLOGY

ST 1.107 TECHNOLOGY, SCIENCE & SOCIETY

(3 class hrs/wk 3 cr)

Growth and use of technology in western society is explored in conjunction with aspects of religion, philosophy, sociology and economics. Technology is defined as the physical and intellectual manipulation of tools and materials. Reverse contributions in which technology provides tools to measure, perceive and extend scientific study are discussed.

ST 1.106 SCIENCE & CULTURE IN THE WESTERN TRADITION

(3 class hrs/wk 3 cr)

Surveys the history of western civilization from the perspective of developments in science and technology. Emphasizes the interaction between scientific developments and cultural developments.

TA Theatre

➤ TA 111 INTRODUCTION TO THEATRE

(3 class hrs/wk 3 cr) F/W/Sp

Surveys theatrical production and the relationship and responsibilities of the producers and the audience. Develops an awareness of the skills involved in producing live theatre and an understanding of live theatre as an art form and its contribution to culture.

TA 114 TECHNICAL THEATRE WORKSHOPS: STAGECRAFT

(3 class hrs/wk 3 cr) F

Introduces basic theatre technology emphasizing the practical skills and crafts used in the performing arts -- from equipment and materials to constructing and mounting a production. Uses the Performing Arts Department's production schedule as a practical demonstration of these crafts, skills and techniques. Prior experience not required or expected.

COURSE DESCRIPTIONS

TA 121 FUNDAMENTALS OF ACTING I

(3 class hrs/wk 3 cr) F/W/Sp
Introduces the craft of and an appreciation for acting as an art form. Emphasizes the development of a personal acting style for use in public performance situations. Contributes to communication skills through the realization that acting is another form of personal expression. Uses exercises and in-class performance of scenes and monologues. Prior experience not required or expected.

TA 122 FUNDAMENTALS OF ACTING II

(3 class hrs/wk 3 cr) W
Continues study begun in TA 121. Emphasizes building a character from roles found in contemporary theatrical literature and developing the technique to portray it. Prerequisite: TA 121 Fundamentals of Acting I or TA 125 Improvisation or instructor approval.

TA 123 FUNDAMENTALS OF ACTING III

(3 class hrs/wk 3 cr) Sp
Continues the study begun in TA 121/TA 122 Fundamentals of Acting I and II. Provides the opportunity to continue developing performance skills. Emphasizes acting skills necessary to portray characters from classical theatrical literature and audition techniques. Prerequisite: TA 121 Fundamentals of Acting I or TA 122 Fundamentals of Acting II or instructor approval.

TA 124 READER'S THEATRE

(3 class hrs/wk 3 cr) F/W/Sp
Involves group performance of poetry, prose and drama. Special stress also is placed on the student's selection, planning and direction of Reader's Theatre programs.

TA 125 IMPROVISATION

(3 class hrs/wk 3 cr)
Introduces sensory awareness and problem-solving exercises and theatre games. Intended to enhance creativity and polish acting skills through improvisation. A performance course. Prior experience not required or expected.

TA 161 FUNDAMENTALS OF TECHNICAL THEATRE: SCENERY

(5 class hrs/wk 4 cr) F
Introduces theatre forms and spaces; the working elements of a theatre; and the basic principles and techniques of scenery construction, scene painting and properties. Prerequisite: TA 114 Technical Theatre Workshops: Stagecraft or instructor approval.

TA 162 FUNDAMENTALS OF TECHNICAL THEATRE: LIGHTING

(5 class hrs/wk 4 cr) W
Introduces the history of theatrical illumination and the basic principles of stage lighting and scenic projections. Prerequisite: TA 114 Technical Theatre Workshops: Stagecraft or instructor approval.

TA 163 FUNDAMENTALS OF TECHNICAL THEATRE: SOUND & STAGE MANAGEMENT

(5 class hrs/wk 4 cr) Sp
Introduces basic principles of sound, the equipment and its operation for sound reinforcement in the theatre. Covers the role and responsibility of the stage manager in relationship to sound, lighting and other technical operations. Prerequisite: TA 114 Technical Theatre Workshops: Stagecraft or instructor approval.

TA 180/282 REHEARSAL AND PERFORMANCE

(2-6 class hrs/wk 1-3 cr) F/W/Sp
Offers credit for participating in a public theatre production of the college. Productions provide both extracurricular activity for non-majors and practical application of classroom theory for theatre students. Note: Each may be repeated for up to 9 credits. Prerequisite to TA 282: 3 credits of TA 180 Rehearsal and Performance.

TA 185/285 PRODUCTION WORKSHOP

(2-6 class hrs/wk 1-3 cr) F/W/Sp
Offers practical experience in the preparation of scenery, costumes, properties, sound and publicity for a college theatrical production. Prerequisite to TA 285: 3 credits of TA 185 Production Workshop.

TA 190/290 PROJECTS IN THEATRE

(2-6 class hrs/wk 1-3 cr)
Offers individually arranged projects in the theatre. Note: Each class may be repeated for up to 9 credits. Prerequisite: For TA 190: Instructor approval; for TA 290: 3 credits of TA 190 Projects in Theatre.

TA 198/298 INDEPENDENT STUDIES: THEATRE

(2-6 class hrs/wk 1-3 cr)
Offers individually arranged projects in the theatre. Prerequisite: Instructor approval.

TA 229 ORAL INTERPRETATION OF LITERATURE

(3 class hrs/wk 3 cr)
Studies of poetry, prose, drama and non-fiction through performance. In-class activities increase skills in analyzing literature and acting.

TA 270 STAGE MAKE-UP

(3 class hrs/wk 3 cr) Sp
Teaches basic theory and techniques of theatrical make-up. Includes lecture, demonstration and laboratory experience and is designed for both the theatre major and non-major. No previous experience is required.

TA 280 CWE THEATRE ARTS

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to theatre arts. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

WD Welding

WD 4.151 WELDING I

(4 class hrs/wk 2 cr) F/W/Sp
Stresses safety and equipment familiarization, with lab exercises for skill development in basic gas and electric arc welding. This introductory course includes technical information lectures in related subjects.

WD 4.152 WELDING II

(4 class hrs/wk 2 cr) F/W/Sp
Provides welding skill level required in minor industrial applications. Includes more advanced electric arc-welding and an introduction to gas-shielded arc processes (MIG and TIG). Lab and technical information on related welding subjects included. Prerequisite: WD 4.151 Welding I.

WD 4.153 WELDING III

(4 class hrs/wk 2 cr) F/W/Sp
Advanced course for non-welding majors, designed for a higher degree of welding competency in trade applications. Standard welding practices, welder qualifications and industrial standards are covered as related subjects. Prerequisite: WD 4.152 Welding II or instructor approval.

WD 4.154 WELDING SEMINAR

(2-8 class hrs/wk 1-4 cr) F/W/Sp
Open-entry/open-exit course providing skills upgrading.

WD 4.240 BASIC ARC WELDING

(14 class hrs/wk 6 cr) F
Introduces arc welding practices on mild steel of various thicknesses and joint configurations in all positions.

COURSE DESCRIPTIONS

WD 4.241 INTERMEDIATE ARC WELDING

(14 class hrs/wk 6 cr) W

Builds on skills learned in WD 4.240 Basic Arc Welding, including arc welding of mild steel and special ferrous and non-ferrous alloys. Employs the manual arc, TIG and MIG processes.

WD 4.242 FABRICATION & REPAIR PRACTICES I

(8 class hrs/wk 4 cr) F

Introduces oxyacetylene welding practices on mild steel of various thicknesses and joint configurations in all positions.

WD 4.243 FABRICATION & REPAIR PRACTICES II

(8 class hrs/wk 4 cr) W

Lecture/laboratory course in fundamentals of welding fabrication and repair. Introduces basic procedures in planning, sketching, cost evaluation, ordering, layout, metal preparation, tack-up and final welding. Prerequisite: WD 4.240 Basic Arc Welding; WD 4.242 Fabrication & Repair Practices I.

WD 4.245 LAYOUT PROCEDURES FOR WELDING

(4 class hrs/wk 3 cr) Sp

Introduces layout principles and applications. Tools and equipment for layout are studied in respect to their operating performance, with emphasis on maintenance. Includes planning and construction of templates, layout and specific fabrication to examine process quality. Prerequisite: WD 4.247 Interpreting Metal Fabrication Drawings.

WD 4.246 ADVANCED ARC WELDING

(14 class hrs/wk 6 cr) Sp

Provides continuation of WD 4.241 Intermediate Arc Welding. Prepares students for welder certification in the manual arc and semi-automatic processes.

WD 4.247 INTERPRETING METAL FABRICATION DRAWINGS

(4 class hrs/wk 3 cr) W

Introduces the principles of interpretation and application of industrial fabrication drawings. Basic principles and techniques of metal fabrication are introduced by planning and construction of templates, layout and other fixtures used in fabrication from drawings. Basic tools and equipment for layout fitting of welded fabrications are utilized. Prerequisite: MTH 50 Occupational Mathematics.

WD 4.250 FABRICATION & REPAIR PRACTICES III

(8 class hrs/wk 4 cr) Sp

Continues WD 4.243 Fabrication & Repair Practices II. Provides a more in-depth approach to welding design, fabrication and repair. Prerequisite: Instructor approval.

WD 4.251 FUNDAMENTALS OF WELDING INSPECTION

(4 class hrs/wk 3 cr) Sp

Covers general duties and responsibilities of the welding inspector, including the essential subject knowledge required to judge the quality of welded products to meet the requirement of specifications and code standards. The course offers a comprehensive review of welding processes, codes specifications, qualification of welders and welding procedures, metallurgical considerations, materials control, weld defects testing and examination methods; and inspection techniques. Prerequisite: Previous occupational/training experience with direct relationship to weldments, design production, construction-inspection or NDT testing.

WD 4.255, 4.256, 4.257 FABRICATION & REPAIR PRACTICES IV, V, VI

(1-6 cr, variable) F/W/Sp

Sequence provides advanced information and skills in welding repair and fabrication. Group or individual projects require knowledge gained from related classes, including blueprint reading, cost estimating, ordering and inventorying of materials, layout skills, fabrication and final assembly.

WD 4.258 WELDING PRINTS & PROJECTS

(4 class hrs/wk 3 cr)

Introduces principles of welding fabrication drawings. Visualization of parts and projects, dimensioning and sketching are presented to develop the skills necessary to function in the fabrication and repair field.

WE Cooperative Work Experience

WE 202 CWE SEMINAR

(1 class hr/wk 1 cr) F/W/Sp/Su

A seminar, reading program and research paper providing students enrolled in SFE/CWE an opportunity to discuss issues involved in field work, such as ethics, issues, supervision, career opportunities and resume writing. Course may be repeated for up to 4 credits.

WE 1.201 CWE SEMINAR

(1 class hr/wk 1 cr) F/W/Sp/Su

A Field Experience Seminar course that provides an opportunity for students involved in Cooperative Work Experience to share work-related experiences in a seminar situation with their work experience coordinator and fellow field placement students. Content presented at the seminar includes orientation to Cooperative Education, employability skills, basic planning and basic economics. This course is required for all students enrolled in Cooperative Work Experience and is open to other students who want to participate. Course may be repeated for up to 4 credits.

WE 1.280 COOPERATIVE WORK EXPERIENCE

(6-42 class hrs/wk 1-14 cr) F/W/Sp/Su

An instructional program designed to give students practical experience in supervised employment related to their program. Students identify job performance objectives, work a specified number of hours during the term and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

WR Writing

WR 115 INTRODUCTION TO WRITING

(3 class hrs/wk 3 cr) F/W/Sp

Introduces the writing of expository essays by reviewing grammar, mechanics, sentence structure and strategies to develop related ideas in unified, coherent paragraphs and short essays. Note: This course does not satisfy institutional writing requirements for the transfer student. Placement determined by pre-enrollment testing.

WR 121 ENGLISH COMPOSITION

(3 class hrs/wk 3 cr) F/W/Sp

Covers processes and fundamentals of writing expository essays, including rhetorical structure, organization and development, diction and style, revision and editing, mechanics and standard usage required for college-level writing. Emphasizes developing critical thinking skills. Note: Placement determined by pre-enrollment testing.

WR 121C ENGLISH COMPOSITION: COMPUTER

(3 class hrs/wk 3 cr) F/W/Sp
Covers processes and fundamentals of writing expository essays using computer resources to produce college-level writing. Includes rhetorical structure, organization and development, diction and style, revision and editing, mechanics and standard usage. Emphasizes developing critical thinking skills. Basic keyboarding skills recommended. Note: Placement determined by pre-enrollment testing.

WR 122 ENGLISH COMPOSITION

(3 class hrs/wk 3 cr) W/Sp
Emphasizes the logical means of developing ideas in argumentative essays, thesis statements and reasoning. Includes logic, style and research. Prerequisite: WR 121 English Composition.

WR 123 ENGLISH COMPOSITION

(3 class hrs/wk 3 cr) W/Sp
Introduces use of library, research methods, proper use of sources and documentation. Students write one or more research papers, making use of an outline, note cards, footnotes, bibliography and manuscript forms. Continues emphasis of WR 121 on rhetorical concerns and accuracy in mechanics and usage. Prerequisite: WR 121 English Composition.

WR 123C ENGLISH COMPOSITION: COMPUTER

(3 class hrs/wk 3 cr) F/W/Sp
Introduces informative and analytical writing supported by research utilizing computer word processing and data base programs. Students design a research plan, use primary and secondary sources critically, develop research methods, use proper documentation and develop writing strategies for longer papers. Prerequisite: WR 121 English Composition.

WR 214 BUSINESS ENGLISH

(3 class hrs/wk 3 cr) F/W/Sp
Emphasizes written and oral communication in business, including information gathering, writing, editing, listening, interviewing, non-verbal communication and collaboration. Prerequisite: WR 121 English Composition.

WR 214C BUSINESS ENGLISH: COMPUTER

(3 class hrs/wk 3 cr) F/W/Sp
Emphasizes written and oral communication in business, including information gathering, writing, editing, listening, interviewing, non-verbal communication, collaboration and computer skills. Keyboarding skills encouraged. Prerequisite: WR 121 English Composition.

WR 227 TECHNICAL REPORT WRITING

(3 class hrs/wk 3 cr) F/W/Sp
Introduces gathering, evaluating, organizing and presenting technical information to professional and technical audiences. Emphasizes revision, problem solving and team work; includes writing instructions, proposals, progress reports and formal reports. Prerequisite: WR 121 English Composition.

WR 227C TECHNICAL REPORT WRITING: COMPUTER

(3 class hrs/wk 3 cr) F/W/Sp
Introduces gathering, evaluating, organizing and presenting technical information to professional and technical audiences. Emphasizes revision, problem solving and team work; includes writing instructions, proposals, progress reports and formal reports. Keyboarding skills encouraged. Prerequisite: WR 121 English Composition.

➤ WR 240 PERSONAL JOURNAL WRITING

(3 class hrs/wk 3 cr) F/W/Sp
Introduces the use of journals for recording observations, reflecting thoughts of personal and public interest, preserving one's past, noting ideas for poems or stories, exploring one's identity, or practicing and experimenting with writing styles. Note: May be repeated for up to 6 credits.

➤ WR 241 INTRODUCTION TO IMAGINATIVE WRITING: FICTION

(3 class hrs/wk 3 cr) F/W/Sp
Includes a study of the elements of short fiction (dialogue, setting, character, conflict, etc.). Uses workshop sessions in which students discuss the exercises and stories of their classmates. Note: May be repeated for up to 6 credits.

➤ WR 242 INTRODUCTION TO IMAGINATIVE WRITING: POETRY

(3 class hrs/wk 3 cr) F/W/Sp
Studies basic elements of poetry, types of poetry, uses for poetry and the process of creating poetry. Emphasizes fostering individual style. Note: May be repeated once for credit.

WR 247 LITERARY PUBLICATION

(3 class hrs/wk 3 cr) W
Provides practical application of composition and literature instruction through work on a student creative arts publication.

WR 280 CWE ENGLISH/WRITING

(6-42 class hrs/wk 2-14 cr) F/W/Sp/Su
An instructional program designed to give students practical experience in supervised employment related to writing. Students identify job performance objectives, work a specified number of hours during the term, and attend a related CWE seminar. Note: Credits are based on identified objectives and number of hours worked. Prerequisite: CWE coordinator approval.

WR 1.112 INTRODUCTION TO TECHNICAL WRITING

(3 class hrs/wk 3 cr)
Introduces technical writing for the work place. Covers the writing of instructions, procedures, mechanism descriptions, short reports and memos. Emphasizes editing skills and document design. Course is designed to serve technical programs.

WR 1.131 SPELLING

(3 class hrs/wk 3 cr) F/W/Sp/Su
Teaches spelling skills through structural analysis and spelling principles. Proofreading and dictionary usage are included.

WR 1.154 SPELLING: INDIVIDUALIZED

(3 class hrs/wk 0 cr)
Identifies students' specific problem areas and provides individual program for students to work on those areas. Spelling improvement is taught through structural analysis, spelling principles and use of weekly word lists. Students work at their own pace.

WW Water Wastewater Technology

◆ WW 6.154 PROCESS CONTROL I

(6 class hrs/wk 4 cr) F
First course of a two-course sequence addressing advanced level monitoring, operation, and control concepts for biological treatment processes. Introduces identification of process monitoring tools, data collection, process control calculations and interpretation for biological process evaluation and problem solving. The activated sludge wastewater treatment process is the application for this class. Quattro Pro is the computer spreadsheet program used for data control and analysis.

COURSE DESCRIPTIONS

WW 6.155 PROCESS CONTROL II

(6 class hrs/wk 4 cr) W

Second course in the two-course sequence addressing advanced level monitoring, operation, and control concepts for biological treatment processes. Continues the monitoring and computer-aided data interpretation for biological process evaluation and problem solving. Both suspended growth processes and attached growth processes are the applications for this class. Advanced control topics, including filamentous bacteria identification, biological nitrogen removal and biological phosphorus removal, are covered. Special topics and current issues are discussed as time allows.

WW 6.158 SANITARY SEMINAR

(1-3 class hrs/wk 1-3 cr)

Covers water and wastewater concepts, including chemistry, microbiology, mathematics, hydraulics and practical operational procedures.

WW 6.164 WATER SOURCES

(4 class hrs/wk 3 cr) F

A basic class for water resource managers. Includes surface and groundwater sources. Covers hydrology, water quality, laws and regulations, flow measurements, storage, intake structures and wells.

WW 6.165 WATER DISTRIBUTION & COLLECTION SYSTEMS

(4 class hrs/wk 3 cr) Sp

Includes information on materials and equipment, line repair, fire hydrant maintenance, cross-connection control, storage, water quality, pump stations, cleaning and maintenance of lines, and infiltration inflow monitoring.

WW 6.166 WATER PURIFICATION SYSTEMS

(6 class hrs/wk 4 cr) W

An advanced-level course covering the theory, application and operation of potable water treatment systems. Theory and operation of mixing systems, coagulation chemistry, optimization of chemical applications, flocculation, sedimentation and water filtration are covered. Special related topics in potable water supply may be added as time permits.

WW 6.168 IN-PLANT PRACTICUM

(40 class hrs/wk 2-12 cr) Su

In-Plant Practicum consists of full-time work in a water or wastewater treatment facility. Skills and knowledge developed in first-year courses are combined with on-the-job training by both plant supervisory personnel and LBCC visiting instructors. Prerequisite: HE 112 Emergency First Aid or HE 252 First Aid and instructor approval.

WW 6.180 WATER/WASTEWATER MECHANICS I

(6 class hrs/wk 2 cr) W

First course in a three-term sequence covering the basic mechanical skills required in the water and wastewater treatment industry. Topics include hand tools, threaded fasteners, packing, lubrication, gaskets, precision instruments, gears, belts, chains and plumbing fittings for steel, copper and PVC pipe.

WW 6.181 WATER/WASTEWATER MECHANICS II

(6 class hrs/wk 2 cr) Sp

Second course in a three-term sequence covering the basic mechanical skills required in the water and wastewater treatment industry. Topics include identification, maintenance and repair of valves, hydrants, positive displacement and centrifugal pumps, and chlorinators.

WW 6.190 INTRODUCTION TO ENVIRONMENTAL SCIENCE & TECHNOLOGY

(8 class hrs/wk 5 cr) F

Introduces environmental science, pollution control and environmental technology. Provides the basic understanding of the normal ecology of the planet and the risks associated with polluting the environment. Environmental pollution and control technology topics include safe drinking water, wastewater treatment, air pollution, solid waste and hazardous waste management. Prerequisite: Program admission.

WW 6.191 WATER SYSTEMS OPERATION

(12 class hrs/wk 7 cr) Sp

Develops a basic understanding of water systems operations, including surface water source and watershed management, groundwater sources and development, raw water storage and intakes, coagulation, flocculation, sedimentation, filtration, disinfection, and finished water storage and distribution. Prerequisite: WW 6.190 Introduction to Water and Wastewater Operations; MTH 65 Elementary Algebra.

WW 6.192 WASTEWATER SYSTEMS

(12 class hrs/wk 7 cr) W

Develops a basic understanding of wastewater systems operations, including primary sedimentation, disinfection, aerobic and anaerobic sludge digestion, oxidation ponds, bio-filters and bio-reactors, and solids handling and disposal. Prerequisite: WW 6.190 Introduction to Water/Wastewater Operations; MTH 65 Elementary Algebra.

WW 6.193 INTRODUCTION TO AQUATIC CHEMISTRY & MICROBIOLOGY

(8 class hrs/wk 4 cr) F

A basic chemistry and microbiology course for water and wastewater technology students. Supports basic concepts through lab experiments relevant to the water/wastewater field.

WW 6.194 BASIC AQUATIC CHEMISTRY & MICROBIOLOGY

(8 class hrs/wk 4 cr) W

Continues WW 6.193 Introduction to Aquatic Chemistry and Microbiology. Applies basic concepts to wastewater analytical techniques, including pH, chlorine residual, BOD, solids, activated sludge procedures, microscopic identification of microbes and fecal coliform tests. Prerequisite: WW 6.193 Introduction to Aquatic Chemistry and Microbiology.

WW 6.195 INTERMEDIATE AQUATIC CHEMISTRY & MICROBIOLOGY

(8 class hrs/wk 4 cr) Sp

Continues WW 6.194 Basic Aquatic Chemistry and Microbiology. Basic concepts are applied to drinking water, analytical techniques, including alkalinity, hardness, chlorine residual, iron, total dissolved solids, jar test, taste and odor, and total coliform test. Prerequisite: WW 6.193 Introduction to Aquatic Chemistry and Microbiology.

WW 6.197 SOLIDS HANDLING

(3 class hrs/wk 3 cr) Sp

Deals with the various processes of solids handling and management. Includes aerobic and anaerobic digestion, centrifugation, gravity concentration, gravity thickening, flotation thickening, filter presses, vacuum presses, incineration, land fill and land application. Laboratory control procedures and sludge conditioning also are covered.

WW 6.198 INSTRUMENTATION

(5 class hrs/wk 4 cr) Sp

Provides an introduction to the instrumentation processes used to monitor and control contemporary water and wastewater treatment facilities. Measurement of temperature, pressure, liquid level and flow, and the transmission and controller for these parameters are discussed.

WW 6.199 INTRODUCTION TO HYDRAULICS

(4 class hrs/wk 2 cr) F
Provides an introduction to hydraulics for water/wastewater treatment plant operators. Includes performing basic hydraulic computations, hydraulic measurement units, pressure, head, head loss, flow and pump calculations. Corequisite: MTH 65 Elementary Algebra.

WW 6.235 APPLIED HYDRAULICS

(3 class hrs/wk 3 cr) W
A practical course covering flow, head and head loss calculations, pump calculations and pump curves. Applications are made to water distribution systems and sewage collection systems. Corequisite: MTH 111T College Algebra: Technical.

Non-certificate/Non-degree courses

9.148 PREPARATION FOR WELDER CERTIFICATION

(4 class hrs/wk 2 cr) F/W/Sp
Provides information and skill development for the welder certification test administered by state of Oregon, Dept. of Commerce, Boiler Division. The test is provided upon completion of the course. Prerequisite: WD 4.152 or 9.152 Welding II or instructor approval.

9.151 WELDING I

(4 class hrs/wk 2 cr) F/W/Sp
Stresses safety and equipment familiarization, with lab exercises in basic gas and electric arc welding. Includes technical information lectures in related subjects.

9.152 WELDING II

(4 class hrs/wk 2 cr) F/W/Sp
Provides the welding skill level expected in minor industrial applications. Includes more advanced electric-arc welding and an introduction to gas-shielded arc processes (MIG-TIG). Lab and technical information on related welding subjects included. Prerequisite: 9.151 Welding I.

9.218 FORK LIFT OPERATION

(10 class hrs/wk 1 cr)
Provides training needed to receive an operator's certification card. Meets OSHA safety training requirement. Note: One-week class.

9.313 EMERGENCY MEDICAL TECHNICIAN I

(9 class hrs/wk 8 cr) F/Sp
Presents a basic training program, with classroom theory, practice exercises and clinical experience, in problems encountered by ambulance personnel. Includes overall role and responsibilities of the emergency medical technician in emergency care and operational aspects of the job; develops skill in lifesaving techniques and emergency treatment short of that rendered by physicians or by paramedical personnel under direct supervision of a physician; and develops skill in use and care of necessary equipment. Note: Currently consists of evening lectures, a choice of evening and daytime labs, clinical experiences and field experiences. Prerequisite: Minimum score on the Reading Placement Test.

9.314 EMERGENCY MEDICAL TECHNICIAN II

(9 class hrs/wk 7 cr) W/Su
Upgrades skills of basically trained EMTs, providing a second step in a career development pattern. Includes advanced training in certain aspects of intravenous therapy and airway management. The course introduces pharmacology and drug administration as defined in the scope of practice for EMT IIs. Note: Currently consists of evening lectures, a choice of evening and daytime labs and clinical experiences. In addition to class hours specified above, additional hours are required for the off-campus clinical. Prerequisite: 9.313 Emergency Medical Technician I.

9.320 BCLS-CPR INSTRUCTOR

(8 class hrs/wk 1 cr)
Reviews CPR skills and introduces methods and techniques of CPR instruction. Includes doing lesson plans; using an instructor's manual; evaluating students; and processing forms, records and American Heart Association authorization. Prerequisite: Current American Heart Association CPR card.

9.340 EMT RECERTIFICATION

(8 class hrs/wk 0 cr)
Provides continuing education hours required for on-going state certification on EMTs. This course provides a review of EMT concepts or in-depth presentations on shock, diabetes, orthopedic emergencies, neurological assessment, respiratory assessment, hazardous materials, burns, lifting and moving, terminology, heart attack, stroke, respiratory emergency, emergency childbirth and skill reviews.

9.415A CERTIFIED MEDICATION AIDE

(72 hr/14 wk 4 cr)
Fulfills Oregon State Board of Nursing requirements for CMA certification. Covers basic pharmacology, drug distribution and administration of non-injectable medication in both classroom and clinical learning environments. Prerequisite: CNA with one year of employment; recommendation by a director of nursing; Hepatitis B and measles immunizations required; plus other requirements.

9.419 MINI PHYSICAL ASSESSMENT WORKSHOP

(8 class hrs/wk 1 cr) F/W/Sp
Provides the practicing RN and other health care workers with skills necessary to assess the chest and abdomen. Includes a review of related anatomy and physiology, physical examination techniques used in assessing the thorax and abdomen, integration of common recurring pathophysiology of the thorax and abdomen, identification of heart sounds, adventitious breath sounds and abnormal bowel sounds. Appropriate nursing intervention also is included. Note: One-day workshop. Available only to RN or employee in related health field.

9.425 RE-ENTRY INTO NURSING

(24 class hrs/wk 13 cr) F
Course designed for RNs and LPNs who have not practiced for the past five years or for RNs or LPNs who would like to increase their knowledge. Course meets the State Board of Nursing requirements for re-entry into nursing. Note: If not currently licensed in the state of Oregon, student is required to apply for licensing prior to enrollment. Prerequisite: Oregon State Board of Nursing Limited license to practice nursing or current OSBN RN or LPN license.

9.426 CORONARY CARE NURSING

(7 class hrs/wk 4 cr) F
Provides information for the RN in the coronary care unit. Emphasizes recognition and treatment of cardiac arrhythmia and emergency procedures, such as cardiopulmonary resuscitation and electrical resuscitation. Reviews normal and abnormal anatomy, physiology of the heart, diagnostic methods and treatment of cardiovascular disease. Principles of cardiac monitoring and electrocardiography are applied. Prerequisite: RN or LPN.

9.428 CONTINUING EDUCATION FOR NURSES: NEUROLOGICAL ASSESSMENT

(8 hrs 1 cr) F/Sp
Covers basic skills in neuroassessment. Reviews neuroanatomy and physiology, physical exam and intervention in the neurological patient. Note: One-day class.

9.428M ALZHEIMERS: BASIC CAREGIVING

(20 class hrs 2 cr)

Fundamental information on disease process of dementia and effective interventions of caregivers are presented in an interactive learning environment. Includes successful methods and how-to strategies for resolving caregiving problems. Class schedule varies. Prerequisite: Employed as a CNA or caring for an Alzheimer's patient in the home.

9.428P RESTORATIVE AIDE

(50 class hrs 3 cr)

Prepares the Nursing Assistant with the theory and skills to safely perform restorative functions in long-term care facilities. Prerequisite: CNA for six months; recommendation by employing LTC facility; Hepatitis B and measles immunizations.

9.437 CANCER UPDATE (BONNIE IRA MEMORIAL)

(8 hrs/wk 0 cr) Sp

Yearly continuing education seminar for health care providers in topics related to cancer. Updates current knowledge base.

9.449 ADVANCED CARDIAC LIFE SUPPORT

(24 class hrs 2 cr) F/Sp

American Heart Association approved curriculum in continuing education for health care providers. Covers evaluation and treatment of cardiac emergencies.

9.585, 9.586 FUNDAMENTALS OF ALTERNATING CURRENT I, II

(1-5 class hrs/wk 1-3 cr)

Introduces Alternating Current theory and application, giving the student knowledge and theories relating to concepts of AC. Students acquire basic skills in oscilloscope, function generator, AC power supplies and frequency counter. Alternating Current II is a continuation giving the student additional concepts and theories relating to complex AC circuits. Prerequisite: 9.588 Direct Current II.

9.587, 9.588 DIRECT CURRENT I, II

(1-5 class hrs/wk 1-3 cr)

Introduces electricity and electronics, giving the student knowledge and use of basic theories and laws relating to Direct Current electricity. Includes safety, soldering and basic use of DC power supplies, volt-ohm meters and digital volt meters. Direct Current II is a continuation giving the student knowledge of more laws relating to Direct Current, including network theorems and complex resistive circuits.

9.672 DIGITAL PRINCIPLES I

(6 class hrs/wk 3 cr)

Fundamental course in digital concepts and circuits. Includes practical theory of gates, registers, counters and similar digital circuits.

9.673 BASIC SEMICONDUCTORS I

(6 class hrs/wk 3 cr)

Fundamental course in semiconductors. Includes practical theory of semiconductor diodes, zener diodes, special application and bipolar transistor operations.

9.673A BASIC SEMICONDUCTORS II

(6 class hrs/wk 3 cr)

Continues Semiconductors I. Includes practical theory of bipolar transistors, field effect transistors, thyristors, integrated circuits and opto-electronic devices.

9.673E FUNDAMENTALS OF ALTERNATING CURRENT

(1-2 class hrs/wk 2-4 cr) F/W/Sp/Su

Continuation of Fundamentals of Electronics. Includes capacitance, inductance, capacitive and inductive reactance, impedance and resonance.

9.691 DIGITAL PRINCIPLES II

(6 class hrs/wk 3 cr)

Continues Digital Principles I. Includes practical theory of sequential logic circuits, combination logic circuits and their applications.

9.813 AGRICULTURAL CHEMICALS

(3 class hrs/wk 3 cr) W

Covers the use and chemistry of herbicides, insecticides, fungicides and nematocides. Emphasizes types of material, safety in handling and storing, and methods of application. Students learn to interpret and explain to customers the directions and precautions for various agricultural chemicals. Also covers keeping current with new product development.

9.828 TRACTOR SAFETY

(12 class hrs/wk 1 cr)

Qualifies under-age farm workers for certification in tractor safety and operation skills in accordance with federal regulations. Note: One-week class.

9.934 EARLY CHILDHOOD EDUCATION FALL WORKSHOP

(8 class hrs/wk 1 cr)

Ideas and energy to start a new year of working with young children are the goals of this workshop sponsored by Linn-Benton Chapter of the Oregon Association for the Education of Young Children and the Council for Children. This day-long workshop is especially designed for early childhood educators, primary teachers, preschool and day care center staff, family day care providers, classroom aides and all others who work with young children.

9.947 LIVING AND LEARNING WITH YOUR BABY

(2 class hrs/wk 1 cr)

An active participation class for parents and their infants (birth to beginning walkers). Provides parents an opportunity to discuss parenting topics and to join in activities with their baby.

9.948 LIVING AND LEARNING WITH YOUR TODDLER

(2 class hrs/wk 1 cr)

An active participation class for parents and their toddlers (walking to age 2 1/2). Provides an opportunity for parents to discuss parenting topics and to help plan and join in activities with their toddler.

9.949A, 9.949B, 9.949C LIVING AND LEARNING WITH YOUR TWO-YEAR OLD I, II, III

(3 class hrs/wk 2 cr)

An active participation class designed to meet the needs of parents and their two-year olds. In a lab situation, parents have an opportunity to practice guidance and communication techniques, create appropriate activities and design environments that foster growth and development. In seminars, parents have an opportunity to increase their knowledge of parenting topics.

9.951A, 9.951B, 9.951C LIVING AND LEARNING WITH YOUR PRESCHOOLER I, II, III

(2-5 class hrs/wk 2-3 cr)

A preschool cooperative designed to meet the needs of parents and their three-, four- and five-year-old children. In the lab situation, parents have an opportunity to practice guidance and communication techniques, create appropriate activities and design environments that foster growth and development. In seminars, parents have an opportunity to increase their knowledge of parenting topics and to collaborate on creating a good classroom environment for their children.

9.953 PEG: EFFECTIVE PARENTING OF TEENS

(2 class hrs/wk 1 cr)

Helps parents of teenagers improve their relationships with their children. Emphasizes effective communication skills, mutual problem solving and assuming responsible behavior. Recognizes the strengths families have and the means of increasing personal growth for both parents and adolescents. Note: Eight-week class.

9.956 STEPPARENTING

(2 class hrs/wk 1 cr)

Discusses stepparenting from several vantage points: current stage of the family, the spouses and the children. Emphasizes the strengths of this family type with acknowledgement of how to deal with weaknesses and losses in a realistic manner. Note: Five-week class.

9.957 SINGLE PARENTING

(2 class hrs/wk 1 cr)

Addresses the unique challenges, satisfactions and frustrations of heading a single parent family. Using a discussion format, students cover personal and family values clarification, time management, dating, remarrying, legal aspects, budget and credit information, basic child development, discipline and child care selection.

9.958A BALANCING THE WORK-FAMILY LIFESTYLE

(1 class hr/wk 0 cr)

Classes for family members who maintain a household and either do or desire to work outside the home. Covers skills that help balance the work-family lifestyle, general parenting skills and home management. Note: Six-week class.

9.962C PARENT-TOT GYM

(1 class hr/wk 0 cr)

A gym class for parents and their toddlers. Provides a chance to sing, dance, march and pretend with your child while directing and participating in his or her active exploration of the gym and apparatus.

9.962D PEG: EFFECTIVE PARENTING

(2 class hrs/wk 1 cr)

Designed for parents of school-age children. Emphasizes effective communication skills, mutual problem solving, and appropriate and responsible behavior.

9.962E FAMILY MATH

(4 class hrs/wk 0 cr)

Provides activities designed to develop problem-solving skills. Emphasizes working together. The materials used involve an active hands-on approach. Topics include arithmetic, geometry, measurement, estimation and logical thinking, probability and statistics.

9.962G KIDS, PARENTS AND COMPUTERS

(1.5 class hrs/wk 0 cr)

Acquaints children and parents with the power of the computer as a tool for learning. Emphasizes decision making, problem solving and communication.

9.962NA FAMILY CHILD CARE: FIRM FOUNDATION

(2 class hrs/wk 1 cr)

Presents an introductory overview of the components of high-quality family child care. Caregivers learn how to provide quality care and have the opportunity for self-assessment as they apply new concepts and skills. Note: Six-week class.

9.962O PREPARING FOR THE DRUG (FREE) YEARS

(2 class hrs/wk) 0 credit

Parents learn how to confront the problem of alcohol/drug use in our society by making clear to their children the parents' vision of a happy and healthy life, free from problems with drugs.

9.962UA CHILD-CARE ACCREDITATION

(2 class hrs/wk 0 cr)

Provides help and support in gaining recognition as a quality child-care provider. Note: Three sessions.

9.962Z FAMILY CHILD CARE III: SPECIAL TOPICS

(2.5 class hrs/wk 1 cr)

Enhances the family child-care provider's program by teaching ways to equip the care environment, plan activities, obtain resources and meet special needs of children.

9.965, 9.966, 9.967 LIVING AND LEARNING WITH YOUR CHILD WITH SPECIAL NEEDS I, II, III

(3 class hrs/wk 2 cr) Sp

A course for parents of children with special needs. Parents and their preschool children participate in a lab specifically designed to meet the needs of children with speech, hearing and other handicapping conditions. Through seminar and lab participation, parents increase their knowledge and awareness of the child's development and social needs.

9.971 FAMILY RESOURCE FAIR

(7 class hrs/wk 1 cr)

A one-day conference offering parents a wide selection of workshops for today's parents. Area schools and agencies co-sponsor the conference.

9.982 CHILD ABUSE: A COMMUNITY CONCERN

(12 class hrs/wk 1 cr)

Focuses on various aspects of the child abuse issue. Topics may include identification and investigation of child abuse, the importance of a community team approach to the problem, treatment and other positive solutions to the problem. Note: Two-day workshop.

9.984D FAMILY CHILD CARE II: BUILDING ON BASICS

(2.5 class hrs/wk 1 cr)

Enhances the family child-care business through professional planning, attitude and communication skills, and relationships. Note: Six-week class.

9.984E FCC CHECK-IN: PROVIDER TRAINING

(2 class hrs/wk 0 cr)

Teaches positive and supportive ways to provide flexible supervision to pre-adolescent-age children before and after school. Note: Three-week class.

9.984G TWEENS: PARENTING 10-14 YEAR OLDS

(2 class hrs/wk 0 cr)

Looks at growth and development issues that are unique to 10-14 year olds and strategies for positive parenting. Note: Four-week class.

9.984I AVENUES TO ADOPTION

(3 class hrs/wk 1 cr)

Enables prospective parents to explore adoption. Cosponsored with Plan Adoption Agency. Note: Five-week class.

9.994 FOSTER PARENT ORIENTATION

(2.5 class hrs/wk 1 cr)

Provides basic orientation to individuals about the foster care program. Basic rules and regulations for foster care are covered.

9.995 FOSTERING THE SEXUALLY ABUSED CHILD

(2.5 class hrs/wk 1 cr)

Covers the dynamics of sexual abuse, how it relates to children and how to help them cope with the trauma.

9.996 FOSTERING DISCIPLINE

(2.5 class hrs/wk 1 cr)

Explores new methods of behavior management for children. ♦

Alcohol- and Drug-Free Program in Place at Linn-Benton

As one part of its Alcohol- and Drug-free (Workplace/School) Program, Linn-Benton Community College has published a pamphlet to inform students and staff about the health risks of using drugs and to outline counseling and treatment resources available in the area. The pamphlet, which is repeated here, includes standards of conduct required of students and staff, a description of the health risks associated with using illicit drugs and abusing alcohol plus an overview of the applicable local, state and federal legal sanctions for the unlawful possession, use or distribution of illicit drugs and alcohol. Anyone wanting additional information should contact LBCC's Human Resources Office, 967-6502.

I. INTRODUCTION

Linn-Benton Community College is legally required and morally committed to the prevention of illicit drug use and the abuse of alcohol by both students and employees. Drug and alcohol abuse is a significant public health problem which has spread throughout our society, affecting performance and productivity, as well as our level of general health. In addition, the use of drugs can adversely affect an organization's level of safety as well as its public confidence and trust. And lastly, with reference to "The Drug-Free Schools and Communities Act Amendment of 1989 (Public Law 101-226),"

"...no institution of higher education shall be eligible to receive funds or any other form of financial assistance under any Federal program, including participation in any federally funded or guaranteed student loan program, unless it certifies to the Secretary that it has adopted and has implemented a program to prevent the use of illicit drugs and the abuse of alcohol by students and employees..."

In brief, this section has been developed by LBCC to comply with the recently enacted federal law and to educate and inform its students and employees of the health risks, counseling and treatment resources, and sanctions for noncompliance. Linn-Benton will biennially review this program to determine its effectiveness and implement changes if needed and to ensure that the sanctions required are consistently enforced.

II. STANDARDS OF CONDUCT

STUDENTS

The LBCC *Student Rights, Freedoms, Responsibilities & Due Process* document (page 11, number 7) defines the following behaviors as violations of the standards of student conduct: "use, possession, or distribution on campus of alcoholic beverages, narcotics, or dangerous drugs as described by the Bureau of Narcotics and Dangerous Drugs, except as expressly permitted by law."

EMPLOYEES

In compliance with the Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act Amendment of 1989 (Public Law 101-226), it shall be the policy of Linn-Benton Community College to maintain an alcohol and drug-free workplace for all employees of the District. The unlawful manufacture, distribution, dispensation, possession or use of alcohol or a controlled substance, except by physician's prescription, is strictly prohibited in the workplace(s) of the Linn-Benton Community College District.

III. A DESCRIPTION OF THE HEALTH RISKS ASSOCIATED WITH THE USE OF ILLICIT DRUGS AND THE ABUSE OF ALCOHOL

ILLICIT DRUGS:

Marijuana is addictive and can cause:
impaired short-term memory
visual tracking, heart rate
slowed reaction time/poor coordination
lung disease
damage to reproductive functions

Cocaine and Crack are highly addictive and may cause:

impaired judgment
short attention span
irritability, depression, mood swings
malnutrition
severe weight loss and liver damage
seizures, coma
seizure and heart attack

PCP, LSD, Heroin, Mescaline and Morphine have a wide variety of negative health effects which may include:

hallucinations
mental confusion and/or
permanent loss of mental function
addiction, convulsions
coma, death

Prescription Drugs are too often used to reduce stress and are not safe unless they are taken as prescribed. If abused, they can lead to:

malnutrition
sluggishness or hyperactivity
impaired reflexes
addiction and brain damage
coma, death

ALCOHOL:

Alcohol is the most commonly abused drug and can cause:

loss of concentration
poor judgment and coordination
impaired memory
drowsiness and mood swings
liver damage/cirrhosis of the liver
high blood pressure and heart attack
pancreatitis, various cancers
heart disease

IV. A DESCRIPTION OF THE APPLICABLE LEGAL SANCTIONS UNDER LOCAL, STATE, AND FEDERAL LAW FOR UNLAWFUL POSSESSION, USE, OR DISTRIBUTION OF ILLICIT DRUGS AND ALCOHOL

The following chart describes the penalties in general for possession of key drugs according to the Federal Drug Schedules:

	Maximum prison time	Maximum fine
Schedule I - Class B Felony		
Heroin, LSD, other hallucinogens, marijuana, others	10 years	\$100,000

Schedule II - Class C Felony		
Methadone, morphine, amphetamine, cocaine, PCP	5 years	\$100,000

Schedule III - Class A Misdemeanor		
Non-amphetamine stimulants, some depressants	1 year	\$2,500

Schedule IV - Class C Misdemeanor		
Valium-type tranquilizers, some less potent depressants	30 days	\$500

Schedule V - Violation		
Dilute mixtures, compounds with small amounts of controlled drugs	none	\$1,000

Delivery of less than five grams or possession of less than one ounce of marijuana is a violation. HB 2479 established mandatory evaluation, education and treatment services for those under 18 years of age. If services are successfully completed, the charge will be dropped. Oregon has strong new laws allowing cars, boats, etc. that transport illegal drugs to be seized and forfeited.

Alcohol is an illegal drug for those under 21 years of age. For drivers under 18 ANY detectable amount of alcohol (above .00 BAC) is grounds for losing their license until they are 18. There are many more laws pertaining to alcohol and other drugs. This is a sample to demonstrate that most drugs are VERY illegal, and a criminal conviction may bar a student from their chosen career path or an employee from successful employment with the college.

VI. ASSISTANCE PROGRAMS AVAILABLE TO STUDENTS AND EMPLOYEES

COMMUNITY RESOURCES:

SUBSTANCE ABUSE:

Benton County Alcohol and Drug Treatment Program	757-6850
Linn County Alcohol and Drug Treatment Program	967- 3819
Alcoholics Anonymous, Albany and Corvallis	967-6243
Alcoholics Anonymous, Lebanon	258-5205
Alcoholics Anonymous, Sweet Home	367-5744
Ala-Non/Ala-Teen, Corvallis and Albany	967-6243
Ala-Non/Ala-Teen, Lebanon	259-2028
* Ala-Non/Ala-Teen, Sweet Home	367-3771
Narcotics Anonymous, Albany and Corvallis	967-6262
Cocaine Abuse Hotline	1-800-COCAINE
Community Outreach, Inc.	758-3000
* Sweet Home is coordinated through the Albany Ala-Non/Ala-Teen office.	

RESIDENTIAL TREATMENT:

Good Samaritan Hospital, Insight Recovery Program, Corvallis	757-5237
Milestones Family Recovery Program, Corvallis	753-2230
Serenity Lane, Eugene	687-1110
White Oaks Resident Treatment, Salem	585-6278

COLLEGE RESOURCES:

Students:

Counseling Center, Takena Hall 967-6102

Employees:

LBCC provides an Employee Assistance Program (EAP), available to all employees with .50 or greater contracts. Through this program, each employee and his or her dependents are allowed five visits per year at no cost for appraisal, limited counseling and/or referral. All employee contact with EAP is **strictly confidential**. Telephone numbers for EAP include: Corvallis (757-3013), Albany (928-8613), Salem (588-0777), Tigard (639-3009)

12-Step Program:

LBCC acknowledges the value of this 12-step, anonymous program in attaining and maintaining an alcohol-free lifestyle. Information can be found in room 207, College Center.

V. LBCC SANCTIONS

STUDENTS

Sanctions which may be imposed on students for violations of the code include: *disciplinary probation* (a verbal or written warning by the college president or other administrator), *temporary exclusion* (removal for the duration of a class period), *suspension* (exclusion from classes, privileges, or activities for a specified period), *expulsion* (termination of student status).

EMPLOYEES

The college will impose sanctions or require satisfactory completion of a drug abuse assistance or rehabilitation program. Sanctions imposed may include *disciplinary probation* (the suspension of a more severe penalty for a specific time period, based upon good behavior), *suspension* (the temporary barring from employment for a specific time period, without pay), and/or *termination* (the severance of employment with the college).

Federal Trafficking Penalties

Appendix A

CSA	PENALTY			DRUG	Quantity	PENALTY			
	2nd Offense	1st Offense	1st Offense			2nd Offense			
I and II	Not less than 10 years. Not more than life. If death or serious injury, not less than life. Fine of not more than \$4 million individual, \$10 million other than individual	Not less than 5 years. Not more than 40 years. If death or serious injury, not less than 20 years. Not more than life. Fine of not more than \$2 million individual, \$5 million other than individual	{ 10-99 gm or 100-999 gm mixture	METHAMPHETAMINE	{ 100 gm or more or 1 kg * or more mixture	Not less than 10 years. Not more than life. If death or serious injury, not less than 20 years. Not more than life. Fine of not more than \$8 million individual, \$20 million other than individual.			
			{ 100-999 gm mixture	HEROIN	{ 1 kg or more mixture				
			{ 500-4,999 gm mixture	COCAINE	{ 5 kg or more mixture				
			{ 5-49 gm mixture	COCAINE BASE	{ 50 gm or more mixture				
			{ 10-99 gm or 100-999 gm mixture	PCP	{ 100 gm or more or 1 kg or more mixture				
			{ 1-10 gm mixture	LSD	{ 10 gm or more mixture				
			{ 40-399 gm mixture	FENTANYL	{ 400 gm or more mixture				
			{ 10-99 gm mixture	FENTANYL ANALOGUE	{ 100 gm or more mixture				
			Drug	Quantity	First Offense		Second Offense		
			Others**	Any	Not more than 20 years. If death or serious injury, not less than 20 years, not more than life. Fine \$1 million individual, \$5 million not individual.		Not more than 30 years. If death or serious injury, life. Fine \$2 million individual, \$10 million not individual.		
	III	All	Any	Not more than 5 years Fine not more than \$250,000 individual, \$1 million not individual.		Not more than 10 years. Fine not more than \$500,000 individual, \$2 million not individual.			
IV	All	Any	Not more than 3 years. Fine not more than \$250,000 individual, \$1 million not individual.		Not more than 6 years. Fine not more than \$500,000 individual, \$2 million not individual				
V	All	Any	Not more than 1 year. Fine not more than \$100,000 individual, \$250,000 not individual.		Not more than 2 years. Fine not more than \$200,000 individual, \$500,000 not individual.				

* Law as originally enacted states 100gm. Congress requested to make technical correction to 1 kg. **Does not include Marijuana, hashish or hash oil. (see separate chart).

Federal Trafficking Penalties - Marijuana

As of November 18, 1988

Quantity	Description	First Offense	Second Offense
1000 kg or more; or 1000 or more plants	Marijuana Mixture containing detectable quantity*	Not less than 10 years, not more than life. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$4 million individual, \$10 million other than individual.	Not less than 20 years, not more than life. If death or serious injury, not less than life. Fine not more than \$8 million individual, \$20 million other than individual.
100 kg to 1000 kg; or 100-999 plants	Marijuana Mixture containing detectable quantity*	Not less than 5 years, not more than 40 years. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$2 million individual, \$5 million other than individual.	Not less than 10 years, not more than life. If death or serious injury, not less than life. Fine not more than \$4 million individual, \$10 million other than individual.
50 to 100 kg	Marijuana	Not more than 20 years. If death or serious injury, not less than 20 years, not more than life. Fine \$1 million individual, \$5 million other than individual.	Not more than 30 years. If death or serious injury, life. Fine \$2 million individual, \$10 million other than individual.
10 -100 kg	Hashish		
1 to 100 kg	Hashish Oil		
50-99 plants	Marijuana	Not more than 5 years. Fine not more than \$250,000 individual, \$1 million other than individual.	Not more than 10 years. Fine \$500,000 individual, \$2 million other than individual.
Less than 50 kg	Marijuana		
Less than 10 kg	Hashish		
Less than 1 kg	Hashish Oil		

*Includes Hashish and Hashish Oil.

(Marijuana is a Schedule I Controlled Substance.)

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FACULTY & ADMINISTRATIVE STAFF

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Guidance Counselor. BA, MS, California State University. At Linn-Benton since 1974.

Etringer, Stephen

Faculty, Manufacturing Technology. BA, Northern Iowa; MFA, University of Iowa. Journeyman Machinist. At Linn-Benton since 1989.

Falk, Randy

Faculty, Physical Education. BS, Rocky Mountain College; MEd, University of Idaho. At Linn-Benton since 1991.

Falkin, April

Associate Dean, Business, Training & Health Occupations Division. BA, University of Washington; MA, Eastern Washington University; PhD, University of Illinois. At Linn-Benton since 1991.

Fella, Charlene

Director, Student Programs and International/Intercultural Services. BS, Abilene Christian University; MA, San Jose State University; MA, Mt. Angel Graduate Seminary. At Linn-Benton since 1984.

Fitzgerald, Joanne

Director, Sweet Home Center. BA, College of Wooster; MA, University of Montana. At Linn-Benton since 1990.

Flaherty, Carroll

Faculty, Developmental Studies. BA, Stanford University; MA, Oregon State University. At Linn-Benton since 1982.

Foust, Shirley

Executive Secretary, Vice President for Administrative Affairs. Benke-Walker Business School. At Linn-Benton since 1983.

Fraser-Helvin, Janice

Guidance Counselor. BA, University of Alberta; Diploma in Ed., University of Victoria; MS, Oregon State University. At Linn-Benton since 1989.

Freeman, Kim

Coordinator, Transitions, Choices and Options. BS, University of Oregon. At Linn-Benton since 1992.

Frisch, Nickie

Faculty, JOBS Program. BA, Boise State University; MSW, Portland State University. At Linn-Benton since 1992.

Gardner, Carolyn

Faculty, ABE/GED. BS, University of Illinois; MA, University of Pennsylvania. At Linn-Benton since 1985.

Garland, May

Faculty, Learning Center; Language Arts Coordinator. BA, Millsaps College; MA, Appalachian State University. At Linn-Benton since 1989.

Gregory, Russell

Faculty, Developmental Studies. BA, MEd, Colorado State University. At Linn-Benton since 1975.

FACULTY & ADMINISTRATIVE STAFF

Griffiths, John

Faculty, Manufacturing Technology. BS, MEd, Utah State University; professional counseling certificate; journeyman machinist experience. At Linn-Benton since 1972.

Grigsby, Paula

Faculty, Disabled Student Services. BS, Portland State University; MS, Oregon College of Education. At Linn-Benton since 1973.

Hagfeldt, Rachael

Faculty, Nursing. BSN, MEd, University of Oregon; MS, Oregon State University. At Linn-Benton since 1981.

Hagood, Paul

Faculty, English/Foreign Languages. BA, Whitworth College; MA, Eastern Washington University. At Linn-Benton since 1985.

Hansen, Kent

Faculty, Electronics Engineering Technology. AS, Oregon Institute of Technology; BS, MEd, Oregon State University. At Linn-Benton since 1974.

Harding, Vera

Faculty, Foreign Language/Spanish. BA, Catholic University of Rio de Janeiro; MA, University of Oregon. At Linn-Benton since 1980.

Harrison, Clifford W.

Faculty, Auto Body Repair. Certified from provinces of Alberta and Ontario, Canada; Master ASE Certificate (Auto Body). At Linn-Benton since 1977.

Hawk, Gregory

Faculty, Physical Education and Health. BS, Northwest Missouri State University; MA, Eastern Washington University. At Linn-Benton since 1983.

Henich, Michael

Faculty, Auto Mechanics/Diesel. BGS, University of Nebraska; MSE, University of Southern California; PhD, Oregon State University. At Linn-Benton since 1979.

Herrold, Debbie

Faculty, Physical Education. BS, Western Oregon State College; MS, Oregon State University. At Linn-Benton Since 1986.

Hogeland, Elizabeth J.

Faculty, Family Resources. BA, MS, PhD, Florida State University; MA, Northeast Missouri State University. At Linn-Benton since 1990.

Hopkins, Glenda

Faculty, ABE/GED. BA, Northwest Christian College; MEd, University of Oregon. At Linn-Benton since 1988.

Horton, Richard

Faculty/Coordinator, Cooperative Work Experience. BS, Fort Hays University; MS, Kansas State University; MBA, Oregon State University. At Linn-Benton since 1979.

Jackson, Allan

Faculty, Heavy Equipment Mechanics/Diesel. AS, Oregon Institute of Technology; Master ASE Certificate (Diesel/Heavy Equipment); related field experience. At Linn-Benton since 1978.

Johnson, Candice (Candy)

Director, Adult Basic Education. BS, Southern Oregon College. At Linn-Benton since 1977.

Johnson, Elimina (Taffy)

Faculty, Nursing. BSN, Walla Walla College; MPH, Loma Linda University; PhD, Oregon State University. At Linn-Benton since 1984.

Keiser, Joy

Faculty, Even Start Project. BA, California State University at Los Angeles. At Linn-Benton since 1992.

Kelly, Susie

Faculty, Biology. AAS, Paul Smiths College; BS, University of Montana; MS, Oregon State University. At Linn-Benton since 1989.

Kidd, David

Faculty, Engineering/Wastewater. BS, Northern Arizona University; MS, University of Alaska. At Linn-Benton since 1990.

Kimpton, Verlund (Butch)

Faculty, Physical Education. BS, MS, University of Oregon. At Linn-Benton since 1970.

King, Harold

Supervisor, Payroll. Certified Payroll Professional. BA, Oregon State University. At Linn-Benton since 1988.

Klampe, Rick

Faculty, Animal Technology. AS, Linn-Benton Community College; BA, MA, California State University at Fresno. At Linn-Benton since 1989.

Krabbe, Janice

Faculty, Disabled Student Services. BS, MS, University of Houston; MS, Western Oregon State College. At Linn-Benton since 1985.

Kraft, John R.

Faculty, Physical Science. BA, Willamette University; MS, Oregon State University. At Linn-Benton since 1973.

Kraft, Judy

Faculty, Nursing. BSN, MN, Oregon Health Sciences University. At Linn-Benton since 1987.

Krislen, Wendy

Faculty, Business Management. CPA. BS, MBA, Oregon State University. At Linn-Benton since 1988.

Kurtz, George

Vice President, Administrative Affairs. BS, Pacific University; MS, Arizona State University. At Linn-Benton since 1983.

Lacey, Kevin

Supervisor, Custodial Services. Attended Iowa State University. At Linn-Benton since 1989.

Lammers, Mary Ann

Faculty, Business Technology. BS, Montana State University; MS, Utah State University. At Linn-Benton since 1985.

Lauris, George S.

Faculty, Performing Arts/Theatre. BS, University of Oregon; MA, University of Northern Iowa. At Linn-Benton since 1988.

Lebsack, Carolyn J.

Faculty, Biology. BS, MS, Oregon State University. At Linn-Benton since 1976.

Lebsack, Stephen

Faculty, Biology. BS, MS, Oregon State University. At Linn-Benton since 1979.

Lee, John

Director, Benton and Linn County Retired Senior Volunteer Program. At Linn-Benton since 1992.

Lewis, Robert

Faculty, Mathematics, Lebanon Center. BA, MAT, Duke University; MS, Montana State University; PhD, Oregon State University. At Linn-Benton since 1992.

Liebaert, Richard M.

Faculty, Biology. BS, Michigan State University; MA, University of California, Davis. At Linn-Benton since 1978.

Lieberman, Max

Faculty, Sociology. BS, Defiance College; MA, Miami University; MA, California State University, San Jose. At Linn-Benton since 1969.

Lind, Peggy

Faculty, Business Technology. BS, MS, Southern Oregon College. At Linn-Benton since 1978.

Litzer, Doris

Faculty, Fine Art. BS, University of Wisconsin - Stevens Point; MA, Northern Illinois University; MFA, University of Wisconsin - Madison. At Linn-Benton since 1988.

Lucas, James

Faculty, Agriculture/Animal Technology. BS, University of California, Davis; MS, California State University, Fresno. At Linn-Benton since 1978.

Lundstrom, Annamay

Faculty, Dance Aerobics, Benton Center. BA, San Jose State College; Secondary Credential, California State. At Linn-Benton since 1978.

Lundy, Elizabeth

Faculty, Mathematics. BS, Kearney State College; MS, Oregon State University. At Linn-Benton since 1990.

Malosh, Ann

Faculty, JOBS Program, Lebanon. BA, MEd, University of Toledo - Ohio. At Linn-Benton since 1991.

Mann, Charles

Faculty, Developmental Studies. BS, MA, Oregon State University. At Linn-Benton since 1968.

FACULTY & ADMINISTRATIVE STAFF

Martens, Peter

Faculty, Refrigeration, Heating and Air Conditioning. BS, Bethel College, Newton, Kansas; journeyman RHAC; licensed steamfitter mechanic. At Linn-Benton since 1987.

Mason, Holly

Faculty, Water/Wastewater Technology. Attended two years, Water/Wastewater Program. Fourteen years related experience. At Linn-Benton since 1985.

Mason, Ronald

Faculty, Mathematics. BA, MA, University of Southern Florida. At Linn-Benton since 1978.

Maurer, Roger

Faculty, Mathematics. BS, MS, Oregon State University. At Linn-Benton since 1978.

McLennan, Seaton

Faculty, Metallurgy Technology. BS, Oregon State University. Journeyman welder. At Linn-Benton since 1976.

McPheeters, Mary Lou

Faculty, Business Technology. BS, MEd, Oregon State University. At Linn-Benton since 1978.

Miller, Robert A.

Director, Auxillary Services. BS, Southern Oregon State College; MS, PhD, Oregon State University. At Linn-Benton since 1969.

Mills, Ann

Faculty, Mathematics, Benton Center. BS, College of William and Mary; MS, Oregon State University. At Linn-Benton since 1978.

Moos, Bruce

Faculty, Agriculture/Animal Technology. BS, Fresno State; Vocational Certificate, University of California, Davis; MAg, Oregon State University. At Linn-Benton since 1975.

Moreira, Joyce L.

Faculty, Business Technology; Benton Center. BS, MEd, Oregon State University. At Linn-Benton since 1971.

Moskus, Virginia

Director, Fiscal Affairs. AA, Springfield Junior College; BA, University of Illinois; MPA, Sangamon State University; PhD, Illinois State University. At Linn-Benton since 1992.

Mundt, Carla

Faculty, Business Technology, Lebanon Center. BS, Oregon State University. At Linn-Benton since 1986.

Nelson, Doris Helen

Assistant Director, Benton Center. BA, Stanford University; MFA, University of Oregon. At Linn-Benton since 1984.

Neville, Gene

Manager, Food Services. BS, University of Nevada. At Linn-Benton since 1981.

Nicholson, Kevin D.

Supervisor, Maintenance/Grounds. Maintenance electrical license. At Linn-Benton since 1976.

Norman, Gladys

Faculty, Business Computers. Certificate in Data Processing. At Linn-Benton since 1980.

Nunnemaker, Nancy

Supervisor, Bookstore. At Linn-Benton since 1974.

Olsen, Linda

Faculty, ABE/GED, Student Development. BA, Oregon State University. At Linn-Benton since 1979.

Osterlund, Blair

Counseling Psychologist. BS, University of Washington; MS, University of Oregon; PhD, University of Missouri. At Linn-Benton since 1969.

Pascone, John

Faculty, Business Advocate; Director, Business Development Center, Training & Business Development Center. BS, University of San Francisco; MBA, University of Santa Clara. At Linn-Benton since 1986.

Patrick, Michael

Associate Dean, Science and Industry Division. BA, California State Polytechnic; MEd, Oregon State University. At Linn-Benton since 1971.

Paulson, Gregory F.

Faculty, Agriculture/Horticulture. BS, Colorado State University; MEd, Oregon State University. At Linn-Benton since 1976.

Paulson, Jacqueline

Faculty, Nursing. RN, BS, BA, MA, University of Washington. At Linn-Benton since 1972.

Pearce-Smith, Liz

Faculty, Family Resources. BA, Tufts University; EdM, Harvard Graduate School of Education. At Linn-Benton since 1989.

Perkins, Raymond David

Faculty, Physical Science. BA, MEd, Central Washington University; MS, PhD, Oregon State University. At Linn-Benton since 1970.

Peterson, John Bruce

Manager, Takena Theatre. BA, MFA, San Diego State. At Linn-Benton since 1992.

Phillips, Jerald

Faculty, Criminal Justice, Sociology. BS, MPA, Portland State University. At Linn-Benton since 1981.

Popoff, Lance

Director, Financial Aid/Veterans' Affairs. BS, Pacific University. At Linn-Benton since 1986.

Propst, Marlene

Director, Career & Entry Center Services. AS, Linn-Benton Community College; BS, Oregon State University. At Linn-Benton since 1976.

Quick, Dan

Faculty, EMT Program. At Linn-Benton since 1992.

Rasmussen, Steve R.

Faculty, Physical Science. BS, University of Utah; MS, Oregon State University. At Linn-Benton since 1971.

Reed, Wallace

Faculty, Mathematics. BS, MA, Oregon State University. At Linn-Benton since 1972.

Reeder, Carl

Faculty, Automotive Technology. BS, Oregon State University; MEd, Western Washington State University. ASE certified. At Linn-Benton since 1974.

Rinker, Russell

Manager, Networking and Systems Support. BS, University of Oregon. At Linn-Benton since 1981.

Roberts, Marian

Faculty, ABE/GED. BS, Western Montana State University; MEd, Oregon State University. At Linn-Benton since 1973.

Rogers, Judith A.

Faculty, Fine Arts. BFA, MFA, University of California, Santa Barbara. At Linn-Benton since 1977.

Rolfe, Jorjy

Faculty, Library. BA, Pennsylvania State University; MLS, University of Pittsburgh. At Linn-Benton since 1986.

Ross, Robert

Faculty, Biology. BS, MS, University of Oregon. At Linn-Benton since 1968.

Ruppert, Gary

Faculty, Performing Arts/Music, Speech. BA, California State University, Sacramento; MM, University of Oregon. At Linn-Benton since 1975.

Salter, Christina

Guidance Counselor. BA, New College; MS, University of Oregon. At Linn-Benton since 1992.

Sargent, Dennis

Faculty/Business Counselor, Training & Business Development Center. BS, MS, Oregon State University. At Linn-Benton since 1983.

Schuetz, L. Jamison

Faculty, Business Management. BS, Southern Oregon State College; MS, Willamette University; PhD, Oregon State University. At Linn-Benton since 1980.

Schukart, Terry

Faculty, JOBS Program, Lebanon. BS, MS, Oregon State University. At Linn-Benton since 1991.

Scott, Peter C.

Dean, Science & Industry Division. BS, Oregon State University; PhD, Purdue University. At Linn-Benton since 1968.

Sharman, Ronald

Faculty, Water/Wastewater Technology. AS, Linn-Benton Community College; BS, Oregon State University. At Linn-Benton since 1979.

FACULTY & ADMINISTRATIVE STAFF

Siebler, William A.

Faculty, Mathematics. BA, Western Washington State University; MS, San Francisco State University. At Linn-Benton since 1968.

Smart, Ann

Dean, Student Services and Extended Learning Division. BSEd, Ball State University; MHEd, PhD, Oregon State University. At Linn-Benton since 1975.

Snyder, John

Coordinator, Financial Aid. BS, MEd, Oregon State University. At Linn-Benton since 1991.

Snyder, Paul K.

Faculty, Media Specialist. BS, Portland State University; MS, Western Oregon State College. At Linn-Benton since 1974.

Spain, Linda

Faculty, English/Foreign Languages. BS, Minot State University; MEd, Colorado State University. At Linn-Benton since 1979.

Spilde, Mary

Dean, Business, Training & Health Occupations Division. BS, LLB, University of Edinburgh, Scotland; MEd, Oregon State University. At Linn-Benton since 1980.

Stewart, Marti Ayers

Faculty/Training Specialist, Training & Business Development Center; Interim Executive Director for Resource Development. BA, MA, Western Michigan University. At Linn-Benton 1970-79 and 1986 to present.

Stouder, Sally

Faculty, Business Technology. BS, MS, Oregon State University. At Linn-Benton since 1991.

Swain, Barbara

Faculty, Family Resources. BA, University of Puget Sound. At Linn-Benton since 1990.

Sweet, John

Faculty, Engineering/Electronics Engineering Technology. BS, MS, Oregon State University. At Linn-Benton since 1988.

Swett, Katie

Faculty, Nursing. BSN, University of Iowa; MS, Oregon Health Sciences University. At Linn-Benton since 1990.

Tilley, Elaine

Faculty, JOBS Program. BS, North Dakota State University; MS, Oregon State University. At Linn-Benton since 1990.

Tolbert, James A.

Faculty, Graphic Arts. BS, MA, California Polytechnic State University. At Linn-Benton since 1976.

Trautman, Dale

Faculty, Electronics Engineering Technology. BS, MEd, Oregon State University. At Linn-Benton since 1978.

Trautwein, W. Sue

Faculty, Business Technology. BS, Oregon State University; MS, University of Oregon. At Linn-Benton since 1978.

Trimpe, Lynn

Faculty, Mathematics. BS, MST, University of Missouri. At Linn-Benton since 1979.

Trombley, Laurie

Executive Secretary to the Director of Human Resources. AS, AA, Linn-Benton Community College; BS, Oregon State University. At Linn-Benton since 1984.

Turner, Judith E.

Faculty, Library. BA, Central Washington University; MLS, University of Washington. At Linn-Benton since 1989.

Ulrich, Robert

Faculty, Mathematics. BS, MAT, PhD, University of Washington. At Linn-Benton since 1978.

VanderPlaats, Andrew C.

Faculty, Business Management. BS, MBA, University of Portland. At Linn-Benton since 1986.

VanLaere, Margaret Susan

Faculty, ABE/GED. BA, MA, University of Wisconsin. At Linn-Benton since 1983.

Vee, Regina (Gina)

Faculty, Psychology and Sociology. BA, Northern Illinois University; MAIS, Oregon State University. At Linn-Benton since 1973.

Vincent, Joe H.

Faculty, Training & Business Development Center. BA, Indiana University; MEd, Western Washington University. At Linn-Benton since 1993.

Walczak, Al

Faculty, Business Management. BS, Portland State College; MEd, Oregon State University. At Linn-Benton 1969-78 and 1985 to present.

Watson, Diane

Director, Admissions & Records. BAE, University of Florida; MA, EdD, University of Northern Colorado. At Linn-Benton since 1985.

Weber, Roberta (Bobbie)

Faculty, Family Resources. BA, Seattle University; MS, University of Wisconsin, Madison. At Linn-Benton since 1977.

Weems, Peggy

Faculty, Business Computers. BS, MS, Oregon State University. At Linn-Benton since 1980.

Weiss, Mark

Guidance Counselor. BA, California State University at Long Beach; MEd, Oregon State University. At Linn-Benton since 1989.

Weiss, Michael

Faculty, Social Science. BA, Hunter College; MA, Michigan State University; MA, University of Oregon. At Linn-Benton since 1989.

Westfall, Betty

Faculty, Mathematics. BS, Idaho State University; MEd, University of California at Santa Barbara. At Linn-Benton since 1986.

Weyant, Charles E.

Faculty, Library. BA, The American University; MA, Wayne State University; MSLS, Simmons College. At Linn-Benton since 1984.

White, Jane

Faculty, English/Foreign Languages. BA, MA, Michigan State University. At Linn-Benton since 1978.

Wibbens, Beth

Faculty, JOBS Program, Lebanon. BS, Southern Oregon State University; MS, Oregon State University. At Linn-Benton since 1990.

Widmer, Jay

Faculty, Ceramics, Benton Center. BA, Oregon State University. At Linn-Benton since 1974.

Wienecke, David

Director, Facilities/College Services. BS, University of Oregon; MS, Oregon State University. At Linn-Benton since 1989.

Wolff, Susan

Associate Dean, Extended Learning; Director, Benton Center. BS, Montana State University; MEd, Oregon State University. At Linn-Benton 1976-84 and 1986 to present.

Wood, Dennis

Faculty, Welding. AA, Chabot College; journeyman welder; AWS certified welding OC-1 inspector. At Linn-Benton since 1976.

Wright, Carolyn

Faculty, Social Science. BS, Brigham Young University; MS, Portland State University. At Linn-Benton since 1991.

Yee, Cynthia

Assistant Coordinator, Title III; Research Director. BS, Oregon State University. At Linn-Benton since 1991.

Yu, Kitson

Faculty, Business Computers. BS, MS, Troy State University. At Linn-Benton since 1981.

Zimmer, Sandra S.

Faculty, Fine and Applied Arts. BA, University of Nebraska at Kearney; MA, University of Northern Colorado. At Linn-Benton since 1972. ♦



LINN-BENTON
COMMUNITY
COLLEGE

APPLICATION FOR ADMISSION

OFFICE OF ADMISSIONS
6500 PACIFIC BLVD. SW
ALBANY, OREGON 97321
(503)967-6106

PLEASE REMIT A NON-REFUNDABLE \$20
APPLICATION FEE WITH THIS APPLICATION.

OFFICIAL USE ONLY

RESIDENCE STATUS ☐ ☐

QAP ☐ ☐ ☐ ☐ ☐ ☐

COMMENTS _____

PLEASE PRINT OR TYPE

SOCIAL SECURITY NUMBER

I PLAN TO ENROLL:
(CHECK FIRST TERM)

- ☐ SUMMER 19____
☐ FALL 19____
☐ WINTER 19____
☐ SPRING 19____

STATUS:

- ☐ New Student to LBCC
☐ Returning from Absence:
Last Term _____ Year _____
☐ Wish to be Fully Admitted

<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>	
LAST		FIRST		MIDDLE		MAIDEN NAME (LAST)	
<input type="text"/>						<input type="text"/>	
CURRENT STREET ADDRESS						COUNTY	
<input type="text"/>						<input type="text"/>	<input type="text"/>
CITY						STATE	ZIP
<input type="text"/>						<input type="text"/>	<input type="text"/>
MAILING ADDRESS IF DIFFERENT FROM CURRENT ADDRESS						CITY	STATE
<input type="text"/>						<input type="text"/>	ZIP
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
AREA CODE	PHONE NUMBER		*DATE OF BIRTH		DAY	MONTH	YEAR
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
MAJOR CODE	MAJOR (SEE LIST ON BACK OF THIS APPLICATION FOR CODE NUMBER AND MAJOR)						

ARE YOU APPLYING FOR AN EVENING DEGREE PROGRAM (SEE LIST OF MAJORS)? ☐ YES ☐ NO

*ETHNIC IDENTITY

- W. ☐ White Non-Hispanic B. ☐ Black Non-Hispanic H. ☐ Hispanic A. ☐ Asian or Pacific Islander I. ☐ American Indian or Alaskan Native O. ☐ Other

*VOLUNTARY—REQUESTED FOR FEDERAL REPORTS

RESIDENCY INFORMATION

Are you a U.S. citizen? ☐ YES ☐ NO Country

If not U.S. citizen indicate appropriate visa/status: ☐ Immigrant ☐ F-1 ☐ F-2 ☐ Other

Permanent or previous address if you have lived at current address less than 90 days.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
STREET	CITY	COUNTY	STATE
If less than 18 years of age, give permanent address or parents' address.			
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
STREET	CITY	COUNTY	STATE

HIGH SCHOOL, GED OR EQUIVALENT

Do you have, or will you have a High School Diploma by the date you plan to enroll? ☐ YES ☐ NO Or a GED? ☐ YES ☐ NO

Are you, or will you be 18 years old by the date you plan to enroll? ☐ YES ☐ NO

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
SCHOOL NAME	CITY	STATE	GRADUATION YEAR

COLLEGES OR UNIVERSITIES ATTENDED

NAME OF SCHOOL	CITY	STATE	YEARS ATTENDED	CREDITS	DEGREE

The information on this form is a true and accurate statement of my residency and past educational experience.

Applicant's Signature _____

Date _____

The policy of Linn-Benton Community College states there will be no discrimination or harassment on the grounds of race, color, sex, marital and/or parental status, religion, national origin, age, or disability in its programs, activities, or employment. Students having questions about equal opportunity and nondiscrimination, contact the Associate Dean of Student Services.

LBCC MAJOR CODES

CODE KEY

C: Certificate
C1: Certificate 1 year
C2: Certificate 2 year

AAS: Associate of Applied Science
AA: Associate of Arts
AS: Associate of Science

AGS: Associate of General Studies
AHSD: Adult High School Diploma

PROFESSIONAL/TECHNICAL PROGRAMS

C5091 Accelerated Secretary I
C5089 Accelerated Secretary II
C15050 Accounting Clerk
AAS5002 Accounting Technology
AAS5014 Administrative Assistant
AAS5214 Administrative Medical Assistant
AHSD5650 Adult High School Diploma
C15010 Advanced Supervisory Management
AAS5401 Agriculture
C15401 Agriculture
AAS5206 Animal Technology
AAS5204 Animal Technology/Horse Management
AGS5600 Associate of General Studies
AGS5601 Associate of General Studies/Technology Option
AAS5306 Automotive Technology
C25306 Automotive Technology
C5011 Basic Supervisory Management
AAS5000 Business
AAS5106 Business Computer Systems
C15383 Collision Repair Technology
AAS5320 Crafts & Trades
AAS5500 Criminal Justice
Culinary Arts & Hospitality Services
AREAS OF CONCENTRATION AVAILABLE:
AAS8401 Chef Training
AAS8402 Conference & Resort Management
AAS8403 Restaurant & Catering Management
***C15202 Dental Assistant**
AAS5304 Drafting Technology

***AAS5310 Electronics Engineering Technology**
5311 Pre-Electronics
5630 Exploratory Studies (Undecided)
***C5498 Farrier Science**
AAS5100 Graphic Communications
C15316 Heating
AAS5307 Heavy Equipment Mechanics/Diesel
C25307 Heavy Equipment Mechanics/Diesel
AAS5402 Horticulture
C15402 Horticulture
AAS5097 Legal Secretary
AAS5303 Manufacturing Technology
C25303 Manufacturing Technology
C15215 Medical Office Specialist
C15213 Medical Transcriptionist
AAS5399 Metallurgy Technology
C15400 Nondestructive Testing
***AAS5208 Nursing**
5210 Pre-Nursing
C5209 Nursing Assistant
C15087 Office Specialist
5610 Pre-Vocational (for students preparing for special admissions programs)
AAS5317 Refrigeration, Heating & Air Conditioning
C25317 Refrigeration, Heating & Air Conditioning
AAS5004 Supervisory Management
***AAS5408 Water/Wastewater Technology**
***C15410 Water/Wastewater Treatment Plant Operations**
C15308 Welding Technology

LOWER DIVISION TRANSFER PROGRAMS

AA4950 Associate of Arts - Oregon Transfer
AREAS OF CONCENTRATION AVAILABLE:
AA0505 Business Administration
AA4995 Economics
Associate of Science (AS) with an emphasis in:
AS4997 Agricultural Education
AS4999 Agriculture Business Management
AS4996 Animal Science
AS1003 Art
AS4987 Biological Sciences
AS0506 Business Administration
AS0550 Computer Science
AS2100 Criminal Justice
AS4986 Home Economics
Humanities
AREAS OF CONCENTRATION AVAILABLE:
AS8003 Creative Writing
AS8001 Fine Art
AS8002 Literature
AS8004 Music
AS8005 Philosophy/Religion
AS8006 Spanish
AS8007 Theatre

4910 Exploratory Studies - Transfer (Undecided)
AS0600 Journalism/Mass Communications
AS4900 Liberal Studies
AS4984 Mathematics
AS4981 Physical Education & Health
AS0801 Pre-Elementary Education
AS4975 Pre-Engineering
AS0829 Pre-Secondary Education
Social Science
AREAS OF CONCENTRATION AVAILABLE:
AS8202 American Studies
AS8201 Behavioral Studies
AS8203 International/Intercultural Studies
AS1013 Theatre/Speech

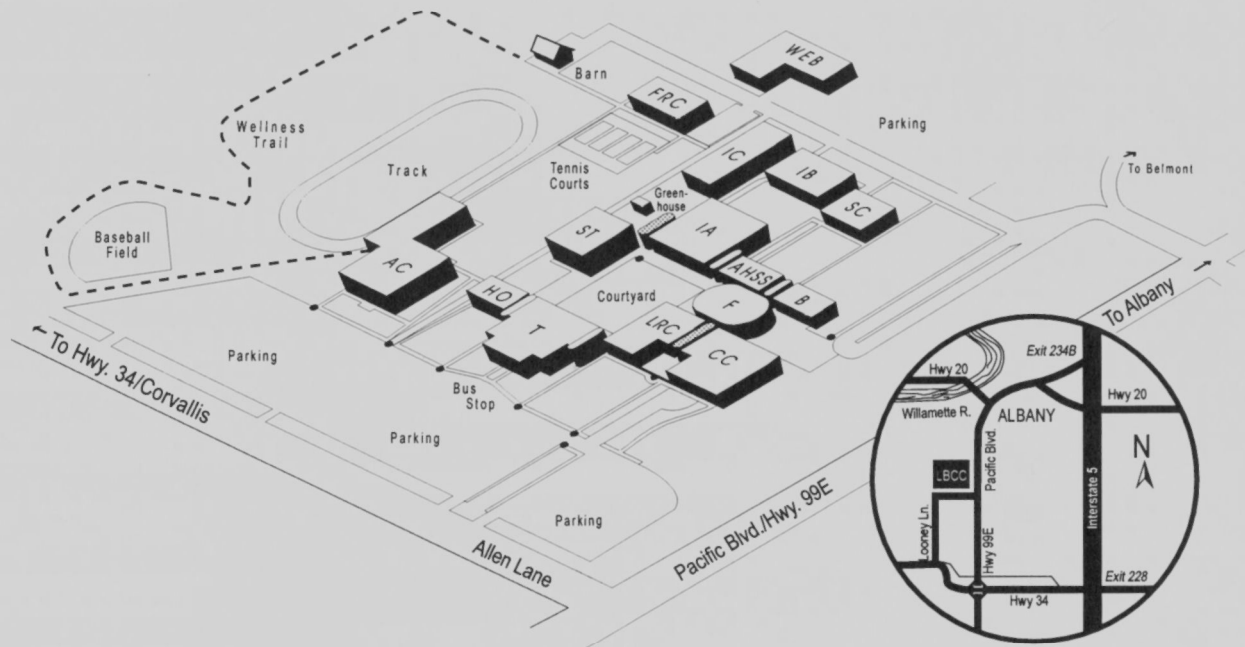
EVENING DEGREE PROGRAMS

C15050 Accounting Clerk
AGS5600 Associate of General Studies
AGS5601 Associate of General Studies/Technology Option
AS0506 Business Administration
AA4950 Associate of Arts - Oregon Transfer

AAS5004 Supervisory Management
C15010 Advanced Supervisory Management
C5011 Basic Supervisory Management

***Major code numbers listed in bold print have special admissions requirements. Admission for entry into these programs must be arranged for in advance in the Admissions Office. See Catalog for details or contact the Admissions Office at 967-6106.**

LINN-BENTON COMMUNITY COLLEGE CAMPUS MAP



AC Activities Center
 B Business
 CC College Center
 F Forum
 FRC Family Resource Center
 HO Health Occupations
 HP Handicap Parking Area
 AHSS Arts, Humanities &
 Social Sciences

IA Industrial A
 IB Industrial B
 IC Industrial C
 LRC Learning Resource Center
 SC Service Center
 ST Science & Technology
 T Takena Hall
 WEB Workforce Education
 Building

Core units house
 restrooms, bicycle parking,
 and some classrooms and offices.

Shaded core units
 house elevators

● Wheelchair Access

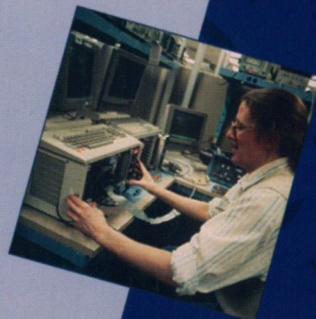
OfficeTelephone/Room Number

Switchboard	928-2361
ABE/GED	967-8836 / WEB-116
Academic Affairs	967-6100 / CC-101
Admissions	967-6106 / T-115
Affirmative Action	967-6502 / CC-108
Albany Center	967-6108 / T-105
Apprenticeship	967-8856 / ST-121B
Athletics	967-6109 / AC - 102
Bookstore	967-6503 / College Center first floor
Business Affairs Office	928-2361, ext. 262 / CC-130
Business Development Center	967-6112 / CC-121
Business, Training & Health Occupations Division	967-6505 / B-111
Camas Room (Snack Bar)	967-6101 / Takena first floor
Career Center	967-6102 / T-101
Child Care Resource & Referral	967-6501 / T-117D
College President	967-6100 / CC-101
Commuter (The) [Student Newspaper]	928-2361, ext. 130 / CC-210
Community Relations	967-6555 / CC-105
Computer Lab	967-8812; nights: 928-2365 / F-204
Cooperative Work Experience	967-6102 / T-101
Counseling/Advising	967-6102 / T-101
Culinary Arts	967-6101 / CC-214
Developmental Studies	967-8836 / LRC-200
Disabled Student Services	928-2361, ext. 299 / LRC-201
Family Resource Center	967-8833 / FRC
Family Resources Department	967-8835 / WEB-106
Financial Aid	967-6104 / T-119

OfficeTelephone/Room Number

First Aid (Security & Safety Services)	967-6552 / CC-123
Food Services	967-6101 / CC-214
Health Occupations	967-6107 / HO-121
Human Performance	967-6109 / AC-102
Human Resources (Personnel)	967-6502 / CC-108
Learning Center	967-8866 / LRC-212
Liberal Arts/Human Performance Division	928-2361, ext. 225 / AHSS-108
Library	967-8813 (Evening Number 928-2363) / LRC-102
Literacy Program	928-2361, ext. 371 / LRC-204
Physical Education	967-6109 / AC-102
Physical Plant	967-6103 / SC-102
President's Office	967-6100 / CC-101
Registration	967-6105 / T-115
Telephone Registration	926-0664 / T-115
Room Reservations	967-6552 / CC-123
RSVP	967-8838 / CC-109
Santiam Room Restaurant	928-2361, ext. 203 / CC-201
Science & Industry Division	928-2361, ext. 124 / ST-121
Security & Safety Services	967-6552 / CC-123
Service Center	967-6103 / SC-102
Student Assessment Center (Testing)	967-6553 / T-227
Student Programs	967-8831 / CC-213
Student Services & Extended Learning Division	T-117
Telecourses	928-2361, ext. 332 / LRC-106
Telephone Registration	926-0664 / T-115
Training & Business Development Center	967-6112 / CC-121
Veterans' Affairs	967-6104 / T-119

GENERAL 503•928•2361
ADMISSIONS 503•967•6106
REGISTRATION 503•967•6105



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